RESOURCE HANDOUTS

ASSESSMENT
OF STUDENT LEARNING

MESSIAH COLLEGE

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Resource Handouts   Assessment of Student Learning

HOW TO ENGAGE STAKEHOLDERS AND DISSEMINATE ASSESSMENT RESULTS

WHO ARE THE STAKEHOLDERS?

Anyone who has a "STAKE" in your educational outcomes

INTERNAL: department members, students, administrators

EXTERNAL: prospective students and their families,

employers, alumni, accreditors, national associations, the local community

MESSIAH'S RUBRIC FOR ENGAGEMENT AND DISSEMINATION 1-4

GOAL

Engagement and Dissemination All relevant parties are meaningfully involved in the creation/revision, implementation, analysis, interpretation, and improvement processes associated with this assessment plan?	Limited involvement in the plan beyond the chair/director.	All department educators are aware and involved in the assessment process.	All department educators are aware and involved in the assessment process. Assessment results are communicated to students, alumni and employers.	All relevant stakeholders (students, employers, alumni) are meaningfully involved in the creation/revision, implementation, analysis, interpretation, and/or improvement processes associated with this assessment plan.

HOW TO IMPROVE YOUR RUBRIC SCORE

Types of Engagement

• Involvement of all faculty/possibly even some adjuncts in assessment efforts and discussions
• Shared positive and negative assessment results with administrators
• Use of internship supervisor evaluation or employer survey as supplemental assessment measure
• Advertisement of objectives or assessment outcomes on website or an open house presentation
• Use of alumni survey as supplementary assessment measure

Possible Venues for Sharing Assessment Results

• Department website
• Emails (departmental, internal, possibly alumni or prospective student communication)
• Alumni magazines/newsletters
• Department memos
• Press releases to the student newspaper
• Presentations at relevant campus meetings (school meetings or beyond)
• Presentations at prospective student events
• Handouts, posters, brochures etc.
• Youtube Channels/Facebook pages
• List Objectives in Catalog/Website

Possible Venues for Garnering Feedback from Stakeholders

• Department meetings
• Discussion of annual assessment results/annual rubric results with your dean
• Current student survey/exiting senior survey/alumni survey
• Current student focus group/focus group of student club participants
• Employer/alumni advisory board
• Discussions at open house presentations/meetings with prospective families
• Facebook pages

Talk to your Department

• Determine strategic purposes and desired outcomes of stakeholder engagement

    - Provide evidence of your educational outcomes to administration (or evidence of needs and therefore resources)

    - Build relationships with community partners and/or alums of your program

    - Communicate clear educational outcomes to prospective families

    - Garner feedback about industry best practices

HOW TO CRAFT PROGRAM LEARNING OBJECTIVES

- Summarize the knowledge and skills a graduate of your major/program should be able to demonstrate as a result of completing the required curriculum
- Should lead with active learning verbs that the department can assess
- For one major should contain about 5-7 stated outcomes

HOW TO WRITE A COURSE/PROGRAM LEARNING OUTCOME

1

Create a stem. Stem Example:

At the conclusion of the course/program, students will:

2

After you create the stem, add an active learning verb:

analyze, recognize, compare, list, etc. [see page 8 for Bloom's list of active learning verbs]
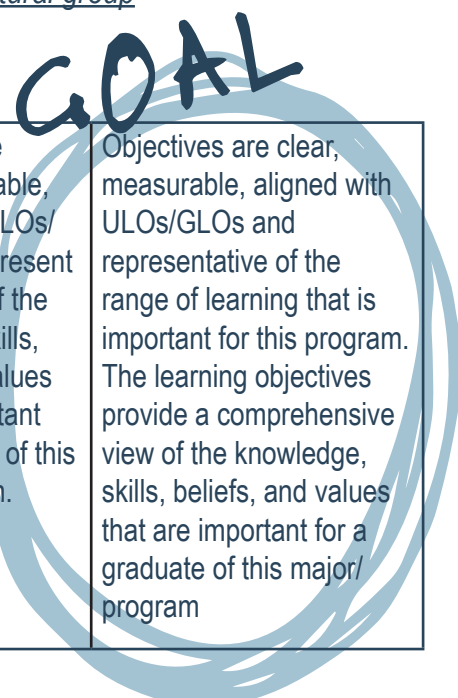
At the conclusion of the course/program, students will:
• Interpret an intercultural experience from the perspectives of their own and more than one worldview
• Create empathic, supportive responses toward members of another cultural group

3

One you have a stem and a verb, determine the actual product, process, or outcome:

At the conclusion of the course/program, students will:
• Interpret an intercultural experience from the perspectives of their own and more than one worldview
• Create empathic, supportive responses toward members of another cultural group

MESSIAH'S RUBRIC FOR STUDENT LEARNING OBJECTIVES 1-4

GOAL

Student Learning Objectives Are student learning objectives clear, measurable, aligned with ULOs/GLOs and representative of teh range of learnign for that major/program?	Objectives are problematic (vague, abstract, not aligned with ULOs/GLOs or missing.	Objectives are clear, mostly measurable, partially aligned with ULOs/GLOs	Objectives are clear, measurable, aligned with ULOs/GLOs and represent an overview of the knowledge, skills, beliefs, and values that are important for a graduate of this major/program.	Objectives are clear, measurable, aligned with ULOs/GLOs and representative of the range of learning that is important for this program. The learning objectives provide a comprehensive view of the knowledge, skills, beliefs, and values that are important for a graduate of this major/program

WRITING PROGRAM LEVEL LEARNING OBJECTIVES
FOR THE UNDERGRADUATE PROGRAM

YOU NEED AT LEAST ONE PROGRAM LEVEL LEARNING OBJECTIVE
THAT MAPS TO EACH OF THE FOLLOWING UNDERGRADUATE LEARNING OUTCOMES

PROGRAM LEVEL LEARNING OBJECTIVES   **UNDERGRADUATE LEARNING OUTCOME**

What knowledge outcomes are foundational to the major?

Examples:
• Students will explain foundational communication practices, theories, and ethical principles:
• Students will explain how various media platforms work, how they produce meanings, how they are organized, and how to use them wisely and effectively.
• Students will explain how to form and maintain healthy relationships with diverse others.
• Students will construct discourse intended to inform, persuade, and entertain.
• Students will articulate ethical communication principles and practices.

Breadth and Depth of Knowledge
Students will develop knowledge common to the liberal arts and sciences in the fields of arts, humanities, natural sciences, and social sciences. Students will also develop specialized knowledge and disciplinary expertise.

YOU CAN USE MORE THAN ONE

What scholarship outcomes are foundational to the major?

Example:
• Students will explain research methods in communication, find and use information sources to support an original argument, and the conduct research using an accepted communication research method.

What skills proficiencies are required in this major in order to pursue a career and/or continue education at the graduate level?

Example:
• Students will communicate effectively, ethically, and appropriately through writing, interaction, and speaking in public, interpersonal, and group contexts.
• Students will develop proficiency in one area of communication sufficient to pursue a career and/or continue education at the graduate level.

Specialized Skills and Scholarship
Students will become proficient in the scholarship of their discipline and demonstrate specialized skills needed to pursue a career and/or graduate school.

WRITING PROGRAM LEVEL LEARNING OBJECTIVES
FOR THE UNDERGRADUATE PROGRAM

YOU NEED AT LEAST ONE PROGRAM LEVEL LEARNING OBJECTIVE
THAT MAPS TO EACH OF THE FOLLOWING UNDERGRADUATE LEARNING OUTCOMES

PROGRAM LEVEL LEARNING OBJECTIVES   **UNDERGRADUATE LEARNING OUTCOME**

In what ways can your students demonstrate an awareness of options for employment, voluntary service, and/or graduate education in the discipline?

Self-Awareness
Students will gain awareness of identity, character, and vocational calling.

Example:
• Gain an awareness of options for employment in a communication-related field.

In what ways should your students be able to articulate how faith connects to their specialized area of study and to potential career options in that area of study?

Faith Knowledge & Application
Students will develop informed and mature convictions about Christian faith and practice.

Example:
• Articulate how faith connects to the discipline and students' area of specialization.

WRITING PROGRAM LEVEL LEARNING OBJECTIVES
FOR THE GRADUATE PROGRAM

YOU NEED AT LEAST ONE PROGRAM LEVEL LEARNING OBJECTIVE
THAT MAPS TO EACH OF THE FOLLOWING GRADUATE LEARNING OUTCOMES

PROGRAM LEVEL LEARNING OBJECTIVES

GRADUATE LEARNING OUTCOME

What knowledge outcomes are
mastery for the program?

Exhibit mastery of specialized
knowledge

Example:
• Demonstrate mastery of content knowledge
requisite to Physical Therpay practice, including
professional practice and patient management.
• Demonstrate knowledge of American Board of
Physical Therapy Specialties such as Orthopedics,
Neurology, Cardiopulmonary, Pediatrics, Geriat-
rics, Sports and Women's Health.

What scholarship activities are
informed by professional standards?

Perform scholarly activities informed by
professional standards

Example:
• Analyze, critique, and summarize research in the
field of Counseling.

What skill masteries are required
in this field of study?

Examples:
• Demonstrate the ability to reflect on and
accurately identify one's areas of strength and
weakness and use that understanding to
effectively interact with others.
• Identify examples of and demonstrate the ability
to confront racism, discrimination, sexism, power,
privilege and oppression, which impact the
practice and policy levels of counseling in a
multicultural society.
• Demonstrate effective counseling techniques.

Demonstrate mastery of competencies
required in their field of study

YOU CAN USE
MORE THAN ONE

WRITING PROGRAM LEVEL LEARNING OBJECTIVES
FOR THE GRADUATE PROGRAM

YOU NEED AT LEAST ONE PROGRAM LEVEL LEARNING OBJECTIVE
THAT MAPS TO EACH OF THE FOLLOWING GRADUATE LEARNING OUTCOMES

PROGRAM LEVEL LEARNING OBJECTIVES   **GRADUATE LEARNING OUTCOME**

In what ways should your students be able to articulate how faith connects to their specialized area of study and to potential career options in that area of study?

Articulate how Christian faith and principles inform their vocation

Example:
• Identify connections of faith, religion, and spirituality and counseling, and describe ethical implications of including discussions Christian faith in a counseling setting.

What are the ethical principles relevant to their profession?

Apply ethical principles relevant to their profession

Example:
• Articulate a worldview that facilitates forgiveness and reconciliation within relationships in the counseling field.

What intercultural competencies are students expected to develop?

Demonstrate intercultural competence

Example:
• Exhibit knowledge of how experiences and dimensions of identity impact peoples' views of others, including clients and counselors.

BLOOM'S LIST OF ACTIVE LEARNING VERBS

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
Choose	Classify	Choose	Categorize	Appraise	Combine
Describe	Defend	Dramatize	Classify	Judge	Compose
Define	Demonstrate-	Explain	Compare	Criticize	Construct
Label	Distinguish	Generalize	Differentiate	Defend	Design
List	Explain	Judge	Distinguish	Compare	Develop
Locate	Express	Organize	Identify	Assess	Formulate
Match	Extend	Paint	Infer	Conclude	Hypothesize
Memorize	Give Examples	Prepare	Point out	Contrast	Invent
Name	Illustrate	Produce	Select	Critique	Make
Omit	Indicate	Select	Subdivide	Determine	Originate
Recite	Interrelate	Show	Survey	Grade	Organize
Select	Interpret	Sketch	Arrange	Justify	Plan
State	Infer	Solve	Breakdown	Measure	Produce
Count	Match	Use	Combine	Rank	Role Play
Draw	Paraphrase	Add	Detect	Rate	Drive
Outline	Represent	Calculate	Diagram	Support	Devise
Point	Restate	Change	Discriminate	Test	Generate
Quote	Rewrite	Classify	Illustrate		Integrate
Recall	Select	Complete	Outline		Prescribe
Recognize	Show	Compute	Separate		Propose
Repeat	Summarize	Discover			Reconstruct
Reproduce	Tell	Divide			Revise
	Translate	Examine			Rewrite
	Associate	Graph			Transform
	Compute	Interpolate			
	Convert	Manipulate			
	Discuss	Modify			
	Estimate	Operate			
	Extrapolate	Subtract			
	Generalize				
	Predict				

ULO/CWEO MATRIX

The following matrix explains how the major learning objectives relate to the undergraduate learning outcomes (ULOs) and demonstrates the contributions of student affairs and general education to the ULOs.

		Undergraduate Learning Outcomes					
		Foundations for Learning *Develop skills common to the liberal arts and sciences: research, analysis, reflection, and communication*	**Breadth and depth of knowledge** *Develop knowledge common to the liberal arts and sciences in the fields of arts, humanities, natural sciences, and social sciences. Students will also develop specialized knowledge and disciplinary expertise*	**Faith knowledge and application** *Develop informed and mature convictions about Christian faith and practice*	**Specialized skills and scholarship** *Become proficient in the scholarship of their discipline and demonstrate specialized skills needed to pursue a career and/or graduate school*	**Self-Awareness** *Gain awareness of identity, character, and vocational calling*	**Social responsibility** *Demonstrate a commitment to service, reconciliation, and justice, and lead effectively and ethically within the complexities of an increasingly diverse and interdependent world*
College Wide Educational Objectives	1.To develop those abilities essential to liberal arts education;	**Q1** **SA1**					
	1.a. Thinking logically and creatively, analytically and synthetically, and abstractly and concretely;	**Q1** **SA1**					
	1.b. Reading, observing, and listening carefully and critically;	**Q1** **SA1**					
	1.c. Writing and speaking coherently;	**Q1** **SA1**					
	1.d. Appreciating the aesthetic dimensions of life;		**Q2**				
	1.e. Functioning effectively in quantitatively- and technologically-oriented cultures;	**Q1** **SA1**					
	1.f. Accessing, evaluating, and using information effectively and ethically;	**Q1** **SA1**					
	1.g. Pursuing the process of learning as a life-long pursuit;		**Q2**				
	1.h. Balancing commitment with humility.					**Q4** **SA6**	
	2. To gain knowledge common to liberal arts education.		**Q2**				
	2.a. Developing basic understanding of geographical, social, political, and religious realities throughout the world;		**Q2**				
	2.b. Learning significant aspects of the Western social, cultural, political, religious, and philosophical heritage;		**Q2**				
	2.c. Learning significant aspects of at least one non-Western culture;		**Q2**				

		Undergraduate Learning Outcomes					
		Foundations for Learning *Develop skills common to the liberal arts and sciences: research, analysis, reflection, and communication*	**Breadth and depth of knowledge** *Develop knowledge common to the liberal arts and sciences in the fields of arts, humanities, natural sciences, and social sciences. Students will also develop specialized knowledge and disciplinary expertise*	**Faith knowledge and application** *Develop informed and mature convictions about Christian faith and practice*	**Specialized skills and scholarship** *Become proficient in the scholarship of their discipline and demonstrate specialized skills needed to pursue a career and/or graduate school*	**Self-Awareness** *Gain awareness of identity, character, and vocational calling*	**Social responsibility** *Demonstrate a commitment to service, reconciliation, and justice, and lead effectively and ethically within the complexities of an increasingly diverse and interdependent world*
College Wide Educational Objectives	2.d. Becoming aware of how people of different cultures perceive the world, interpret reality, and make meaning;						**Q4**
	2.e. Learning the methods, philosophies, and basic principles of the mathematical, natural, and social sciences;		**Q2**				
	2.f. Learning the traditions and methods of the arts and the humanities;		**Q2**				
	2.g. Making connections (i.e., probing relationships, including congruencies and contradictions) between learnings acquired in a-f above.	**Q1 SA1**:					
	3. To become biblically literate and theologically reflective:			**Q3 SA2**			
	3.a. Developing knowledge of and about God as revealed in Jesus Christ;			**Q3 SA2**:			
	3.b. Gaining knowledge of the Bible's content and themes, including the biblical witness on service, leadership, and reconciliation;			**Q3 SA2**			
	3.c. Learning about historic Christian beliefs, practices, and ecclesiastical expressions, and the particular emphases of the Anabaptist, Pietist, and Wesleyan traditions;			**Q3 SA2**			

	Undergraduate Learning Outcomes					
	Foundations for Learning *Develop skills common to the liberal arts and sciences: research, analysis, reflection, and communication*	**Breadth and depth of knowledge** *Develop knowledge common to the liberal arts and sciences in the fields of arts, humanities, natural sciences, and social sciences. Students will also develop specialized knowledge and disciplinary expertise*	**Faith knowledge and application** *Develop informed and mature convictions about Christian faith and practice*	**Specialized skills and scholarship** *Become proficient in the scholarship of their discipline and demonstrate specialized skills needed to pursue a career and/or graduate school*	**Self-Awareness** *Gain awareness of identity, character, and vocational calling*	**Social responsibility** *Demonstrate a commitment to service, reconciliation, and justice, and lead effectively and ethically within the complexities of an increasingly diverse and interdependent world*
3.d. Becoming familiar with contemporary theological dialogue and biblical scholarship;			**Q3**			
3.e. Recognizing the influence of culture upon the Christian faith, and appreciating the insights that other cultures contribute to Christian theology and practice;						**Q4 SA3 SA4**:
3.f. Acquiring the ability to articulate and evaluate one's faith;					**Q4 SA5, SA6**	
3.g. Exploring various connections between faith and learning			**Q3 SA2**			
4. To attain specialized knowledge and abilities in at least one area of study		**Q2**				
4.a. Understanding the foundational content and philosophical assumptions of one's specialized area of study		**Q2 All Majors**				
4.b. Engaging in scholarship in one's specialized area of study				**All Majors**		
4.c. Developing proficiency in one's specialized area of study sufficient to pursue a career and/or continue education at the graduate level				**All Majors**		
4.d. Gaining an awareness of options for employment, voluntary service, and/or graduate education in one's specialized area of study					**All Majors Q4 SA5 SA6**	
4.e. Articulating how faith connects to one's specialized area of study and to potential career options in that area of study			**All academic majors**			

(Row label at left side of table, rotated: College Wide Educational Objectives)

		Undergraduate Learning Outcomes					
		Foundations for Learning *Develop skills common to the liberal arts and sciences: research, analysis, reflection, and communication*	**Breadth and depth of knowledge** *Develop knowledge common to the liberal arts and sciences in the fields of arts, humanities, natural sciences, and social sciences. Students will also develop specialized knowledge and disciplinary expertise*	**Faith knowledge and application** *Develop informed and mature convictions about Christian faith and practice*	**Specialized skills and scholarship** *Become proficient in the scholarship of their discipline and demonstrate specialized skills needed to pursue a career and/or graduate school*	**Self-Awareness** *Gain awareness of identity, character, and vocational calling*	**Social responsibility** *Demonstrate a commitment to service, reconciliation, and justice, and lead effectively and ethically within the complexities of an increasingly diverse and interdependent world*
College Wide Educational Objectives	5. To develop an understanding of one's identity and Christian vocation					**Q4 SA5 SA6**	
	5.a. Developing an awareness of and concern for the whole person, including physical, emotional and spiritual wellness;					**Q4 SA5 SA6**	
	5.b. Acquiring an appreciation for how one's faith, community, and culture impact one's identity and sense of meaning					**Q4 SA5 SA6**	
	5.c. Developing a sense of vocation that includes but transcends career choice					**Q4 SA5 SA6**	
	5.d. Gaining a realistic sense of one's distinctiveness, including one's interests, abilities, and limitations					**Q4 SA5 SA6**	
	5.e. Discerning and reflecting on the role(s) one assumes in groups, including one's faith community					**Q4 SA5 SA6**	
	6. To develop the intellect and character necessary to express Christian commitments in responsible decisions and actions.			**Q3 SA2**			
	6.a. Developing individual and corporate spiritual disciplines that nurture personal faith and compassion for others			**Q3 SA2**			
	6.b. Assessing cultural values and ethical traditions in light of the biblical witness						**Q4 SA3 SA4**
	6.c. Applying the insights of Christian theology and ethics to complex social and personal issues;						**Q4**

		Undergraduate Learning Outcomes					
		Foundations for Learning *Develop skills common to the liberal arts and sciences: research, analysis, reflection, and communication*	**Breadth and depth of knowledge** *Develop knowledge common to the liberal arts and sciences in the fields of arts, humanities, natural sciences, and social sciences. Students will also develop specialized knowledge and disciplinary expertise*	**Faith knowledge and application** *Develop informed and mature convictions about Christian faith and practice*	**Specialized skills and scholarship** *Become proficient in the scholarship of their discipline and demonstrate specialized skills needed to pursue a career and/or graduate school*	**Self-Awareness** *Gain awareness of identity, character, and vocational calling*	**Social responsibility** *Demonstrate a commitment to service, reconciliation, and justice, and lead effectively and ethically within the complexities of an increasingly diverse and interdependent world*
College Wide Educational Objectives	6.d. Understanding the nature and causes of violence in the world and the means for promoting peace						SA3
	6e. Recognizing the implications of living in an increasingly interdependent world						SA4
	6.f. Evaluating institutional policies and social/cultural practices on the basis of whether they promote peace, justice, and reconciliation						Q4
	6.g. Gaining an appreciation for cultural and ethnic diversity.					Q4 SA3	
	7. To become servants, leaders, and reconcilers in the world.			Q3			Q4 SA3 SA4
	7.a. Practicing a lifestyle based on Christian commitments			Q3: SA2			
	7.b. Developing a sense of civic responsibility and commitment to work with others for the common good						Q4 SA4:
	7.c. Developing the courage to act responsibly and redemptively in a complex world						Q4 SA3 SA4:
	7.d. Practicing good stewardship of economic and natural resources						Q4
	7.e. Acting in ways that respect gender, cultural, and ethnic diversity.						Q4 SA3 SA4
	7.f. Making decisions that reflect and ethic of service, a concern for justice and a desire for reconciliation.						Q4 SA3 SA4
	7.g. Recognizing the relevance of Christian faith to all of life.			Q3 SA2			

Student Affairs

SA 1 – Dig Deep: ability to adapt to changing situations, make complex decisions, solve problems, reflect and think critically

SA 2 – Be Rooted: formation of maturing sense of self, identity, self-esteem, confidence, ethics, integrity, maturing sense of relationship to God resulting in spiritual practices, character building, reconciliation, service, intentional growth

SA 3 – Be Cultivated: Understand, value and appreciate human differences, develop cultural competency, understand and pursue reconciliation

SA 4 – Branch Out: civic responsibility, commitment to service, effective in leadership, commitment to living in community

SA 5 – Be Strong: gain realistic self-appraisal, self-understanding, set personal goals, become interdependent and collaborative, work with others different from self

SA 6 – Bear Fruit: the ability to manage personal affairs, achieve economic self-sufficiency, gain vocational competence, prioritize personal health and leisure activities, and pursue purposeful and satisfying life

QuEST (Qualities Essential for Student Transformation)

Q1 – **Discern and communicate effectively:** abilities to think, read, write and speak effectively. Individuals who develop these abilities are more flexible and adaptable to the changes of the world across the spectrum of different fields and life experiences.

Q2 – Grasp the larger picture: breadth of learning essential for success in today's global living by promoting awareness and insight of how people from different perspectives and beliefs, interpret reality and make meaning. Students also develop the ability to see relationships between these diverse bodies of knowledge which allows them to integrate and apply their learning to increasingly complex and global issues.

Q3 – Develop informed Christian convictions: articulate and evaluate one's faith by gaining knowledge of the Bible's content and themes, including the biblical witness on service, leadership and reconciliation, and by understanding how different Christian faith traditions may shape beliefs. Students develop deeper commitments in service to God and to others as they explore connections between faith and learning.

Q4 – Know Self; Know Good; Do Good: deepening self-awareness as students discern and develop their identity, gifts and vocation, as well as Christian character. These academic experiences empower students to act upon their knowledge and judgment through meaningful careers and lives that respond to the complexities of this world.

HOW TO SELECT ASSESSMENT MEASURES

As a best practice, each stated learning outcome should have at least one direct measure of student progress on the learning (e.g. score on performance exam, rubric from a writing assignment). Your assessment plan should incorporate data from a variety of sources (e.g. survey, exam, project, pulled from a variety of courses) and use indirect measures (e.g. survey, purely qualitative data) strategically.

GOAL

MESSIAH'S RUBRIC FOR MEASURES 1-4

MEASURES Are the instruments used to assess learning relevant for the objective? Do measures yield information/data you can use to drive improvement?	Not all objectives have a measure identified. OR Measures do not directly connect to the objectives.	All objectives have at least one direct measure. Measures connect to learning objectives superficially or tangentially and/or include learning other than stated objectives. Relies almost exclusively on the same form of assessment (survey, exam, project). Relies almost exclusively on data from a single source (course, program, activity).	All objectives have at least one direct measure. Some objectives have multiple measures. Measures clearly connect to learning objectives. And two of the following four criteria: Objectives measured more than one point in time (formative). • Indirect measures are used strategically. • Plan incorporates different forms of assessment (survey, exam, project). • Plan incorporates data from a variety of sources (course, program, activity).	Measures meet all of the following criteria: All objectives have at least one direct measure. Some objectives have multiple measures. Measures clearly connect to learning objectives. Objectives measured more than one point in time (formative). Indirect measures are used strategically. Plan incorporates different forms of assessment (survey, exam, project). Plan incorporates data from a variety of sources (course, program, activity).

MATCHING PROGRAM LEARNING OBJECTIVES WITH MEASURES

This allows for increased probability that we will provide students with the opportunities to learn and practice the knowledge and skills that will be required on the various assessments we design.

"Good grades" are more likely to translate into "good learning". When objectives and assessments are misaligned, students will focus efforts on activities that will lead to good grades on assessments, rather than focusing their efforts on learning what we believe is important.

EXAMPLES OF DIRECT AND INDIRECT MEASURES OF STUDENT LEARNING (COURSE, PROGRAM, AND INSTITUTIONAL LEVELS)

	DIRECT MEASURES	INDIRECT MEASURES
COURSES	- Course and homework assignments - Examinations and quizzes - Term papers and reports - Observations of field work, internship performance, service learning, or clinical experiences - Research projects - Class discussion participation - Case study analysis - Rubric (a criterion-based rating scale) scores for writing, oral presentations, and performances - Artistic performances and products - Grades that are based on explicit criteria related to clear learning goals	- Course evaluations - Test blueprints (outlines of the concepts and skills covered on tests) - Percent of class time spent in active learning - Number of student hours spent on service learning - Number of student hours spent on homework - Number of student hours spent at intellectual or cultural activities related to the course - Grades that are not based on explicit criteria related to clear learning goals
PROGRAM	- Capstone projects, senior theses, exhibits, or performances - Pass rates or scores on licensure, certification, or subject area tests - Student publications or conference presentations - Employer and internship supervisor ratings of students' performance	- Focus group interviews with students, faculty members, or employers - Registration or course enrollment information - Department or program review data - Job placement - Employer or alumni surveys - Student perception surveys - Proportion of upper-level courses compared to the same program at other institutions - Graduate school placement rates
INSTITUTIONAL	- Performance on tests of writing, critical thinking , or general knowledge - Rubric (criterion-based rating scale) scores for class assignments in General Education, interdisciplinary core courses, or other courses required of all students - Performance on achievement tests - Explicit self-reflections on what students have learned related to institutional programs such as service learning (e.g., asking students to name the three most important things they have learned in a program).	- Locally-developed, commercial, or national surveys of student perceptions of self-report of activities (e.g., National Survey of Student Engagement) - Transcript studies that examine patterns and trends of course selection and grading - Annual reports including institutional benchmarks, such as graduation and retention rates, grade point averages of graduates, etc.

Meaningful results are presented only after analyzing the clear and coherent objective against an appropriate assessment measures.

Example: If we say we want students to be able to "describe" something but we assess it using only multiple choice tests, we aren't really getting feedback on the objective.

Following is a helpful matrix provided by Carnegie Mellon University that highlights examples of assessments that align with each of Bloom's Taxonomy learning objectives, and how to measure them accordingly.

TYPES OF LEARNING OBJECTIVE	EXAMPLES OF TYPES OF ASSESSMENT	HOW TO MEASURE

REMEMBER
Students will be able to:
• recall
• recognize
	• Objective Test items that require students to recall or recognize information:
	   - Fill-in the Blank
	   - Multiple Choice items with question stems such as, "what is a…", or "which of the following is the definition of)
	   - Labeling diagrams
	• Reciting (orally, musically, or in writing)
		• Accuracy – correct vs. number of errors
		• Item Analysis (at the class level, are there items that had higher error rates? Did some items result in the same errors?)

UNDERSTAND Students will be able to: • interpret • exemplify • classify • summarize • infer • compare • explain	Papers, oral/written exam questions, problems, class discussions, concept maps, homework assignments that require (oral or written): • Summarizing readings, films, speeches, etc. • Comparing and/or contrasting two or more theories, events, processes, etc. • Classifying or categorizing cases, elements, events, etc., using established criteria • Paraphrasing documents or speeches • Finding or identifying examples or illustrations of a concept, principle	Scoring or performance rubrics that identify critical components of the work and discriminates between differing levels of proficiency in addressing the components
APPLY Students will be able to: • execute • implement	Activities that require students to use procedures to solve or complete familiar or unfamiliar tasks; may also require students to determine which procedure(s) are most appropriate for a given task. Activities include: *Problem sets, performances, labs, Prototyping, Simulations*	Accuracy scores, Check lists, Rubrics, Primary Trait Analysis

TYPES OF LEARNING OBJECTIVE	EXAMPLES OF TYPES OF ASSESSMENT	HOW TO MEASURE
ANALYZE Students will be able to: • differentiate • organize • attribute	Activities that require students to discriminate or select relevant from irrelevant parts, determine how elements function together, or determine bias, values or underlying intent in presented materials. These might include: *Case studies, Critiques, Labs, Papers, Projects, Debates, Concept Maps*	• Rubrics, scored by instructor, juries, external clients, employers, internship supervisor, etc. • Primary Trait Analysis
EVALUATE Students will be able to: • check • critique	A range of activities that require students to test, monitor, judge or critique readings, performances, or products against established criteria or standards. These activities might include: Journals, Diaries, Critiques, Problem Sets, Product Reviews, Case Studies.	• Rubrics, scored by instructor, juries, external clients, employers, internship supervisor, etc. • Primary Trait Analysis
CREATE Students will be able to: • generate • plan • produce	Research projects, musical compositions, performances, essays, business plans, website designs, prototyping, set designs	• Rubrics, scored by instructor, juries, external clients, employers, internship supervisor, etc. • Primary Trait Analysis

HOW TO SELECT MEANINGFUL TARGETS

As a best practice, targets should:

- Be challenging yet achievable
- Be based on professional standards and/or prior data and experience with student work
- Reflect the level of performance a novice professional should be able to demonstrate
- Be set at a level to inspire program improvement

SEVEN TIPS TO CHOOSING APPROPRIATE TARGETS

1 Know how the assessment results will be used: who will use them and what decisions the results will inform. If the purpose is to fund things that need improvement (something many accreditors want to see), you'll want to set a relatively high bar so you identify all potential areas for improvement.

2 Clarify the potential harm of setting the bar too high or too low. If the bar is set too high, you may identify too many problems and spread yourselves too thin trying to address them all. If the bar is set too low, you increase the risk of graduating incompetent students.

3 Bring in external information to inform your discussions. Disciplinary and professional standards, employers and alumni, peer programs and colleges, faculty teaching more advanced courses—any of these help you develop justifiable benchmarks.

4 Have a clear rubric, with clear descriptions of performance in every box. The fuzzier your rubric, the harder it is to set meaningful benchmarks.

5 Look at the assignment that the rubric is evaluating, as well as samples of student work, to inform your thinking. Students' organization and grammar will likely be weaker on an essay exam question completed in a short amount of class time than on a research paper subject to multiple revisions.

6 For each rubric criterion, identify the performance level that represents a minimally competent student: one whose performance would not embarrass you. Setting standards or benchmarks is inherently a value judgment, so a group of people should do this—the more the merrier—by voting and going with the majority. Not all rubric criteria will have the same benchmark: basic or essential competencies like grammar may have a higher benchmark than "aspirational competencies" like creative thinking.

7 Ground your benchmarks with data…but after that first vote. If you have assessment results in hand, or results from peer colleges or programs, share them and let everyone discuss and perhaps vote again. If your students' performance is far below your benchmark, think about setting short-term targets to move your students toward

L. Suskie. (2015, March 23). Setting Meaningful Benchmarks or Standards. [Web log Comment]. Retrieved from http://www.lindasuskie.com/apps/blog/show/43191428-setting-meaningful-benchmarks-or-standards

EXAMPLES

-"85% of political majors will score a 3 or higher on the rubric (out of 4)"

This is a good example of an appropriate target because it is linked directly to an outcome and measure combo, as seen below…

Student Learning Outcome/Objective	Courses	Measures	Target	Timeline
(Students will demonstrate the ability to + [Bloom's action verb] + [something]	Courses in which students receive feed-back on this learning objective	Method to guage achievement of expected results. A measure can relate to multiple outcomes	Overall for satisfactory performance on a Measure-Outcome/Objective combination. Every outcome/measure pair has its own target.	How often will measure/data be collected? each semester? each year? every three years?
Students will be able to analyze political issues and phenomena using political science concepts, theories, and methods	POLI 113, 204, 212, 213, 494	Capstone senior project	85% of politics majors will score a 3 or higher on the rubric	Every even year

-"Out of 14 points- the median score for criterion #1= 10 points"

This is an example of a target that still needs to be refined. First, the target must be converted to measure proficiency level. Then the target also needs to express what percentage of students must achieve this level in order for the target to me met.

CURRICULUM MAPPING OVERVIEW
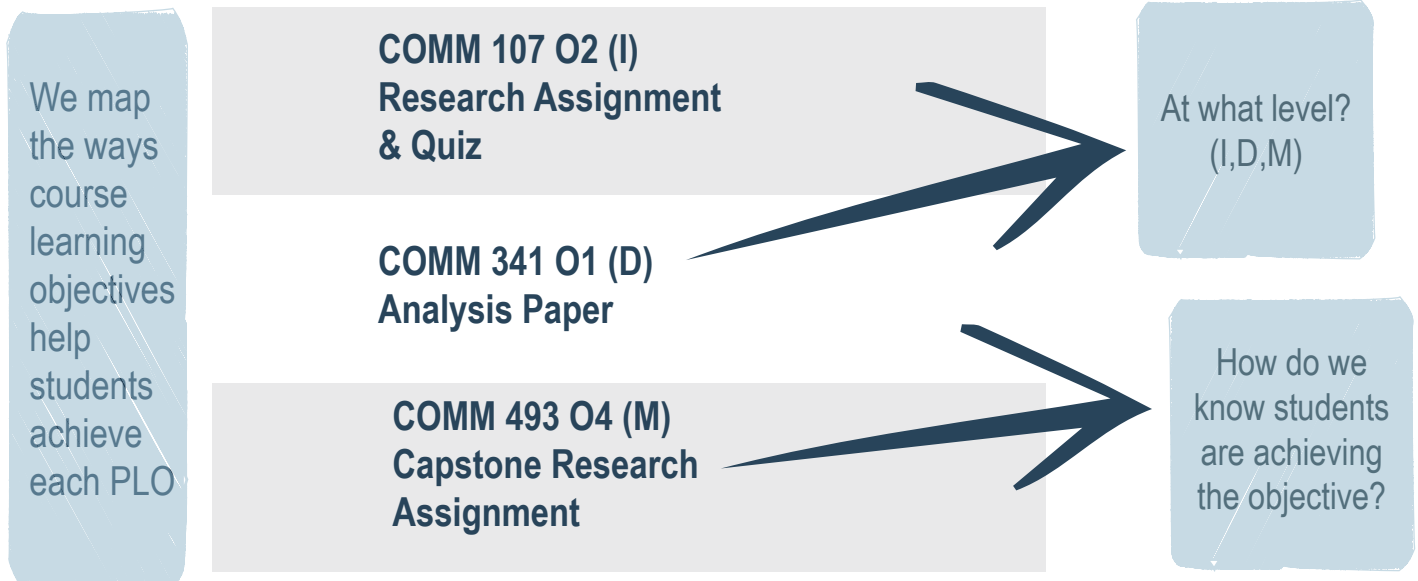
What do we mean by "Curriculum Mapping?"

Curriculum mapping is the process of identifying the specific ways required courses help students achieve program level learning objectives. Curriculum mapping is built from the solid foundation of effective course objectives that support program learning outcomes, and the map is a matrix, with courses and course objectives on one axis and program learning objectives on the other axis. The map also indicates the intended learning achievement level for each course, noting where each program outcome is introduced, developed (practiced/applied/reinforced), or mastered in the required courses.

Basically, curriculum mapping

• Identifies the ways our students are intended to achieve program level learning objectives (i.e. through the required curriculum).

• Helps departmental faculty evaluate the extent to which the curriculum is sufficient to achieve those objectives.

ON A CURRICULUM MAP...

We articulate what students should know/be able to do as a result of completing the curriculum (program learning objectives)

We map the ways course learning objectives help students achieve each PLO

COMM 107 O2 (I)
Research Assignment
& Quiz

COMM 341 O1 (D)
Analysis Paper

COMM 493 O4 (M)
Capstone Research
Assignment

At what level?
(I,D,M)

How do we know students are achieving the objective?

BUT BEFORE WE MAP THE CURRICULUM:
WE HAVE TO MAKE SURE THE CURRICULUM IS BUILT AROUND EFFECTIVE OBJECTIVES

COURSE OBJECTIVES ⟶ What are they?

Course objectives...

- Are numbered or bulleted statements located near the beginning of every course syllabus
- Clearly communicate to students the knowledge or skill the student should be able to demonstrate if s/he masters the learning (course topics or activities are not course objectives)
- Describe learning that is measurable, to help instructors design learning assessments (tests, assignments) that evaluate student progress on the course objectives

Put simply, effective course objectives are **clear**, **measurable**, and **written from the learner's perspective.**

⟶ *Refer back to pages three to eight for a refresher on writing objectives.*

HOW DO COURSE OBJECTIVES CONNECT TO CURRICULUM MAPPING?

Course objectives work to improve our curricula, and curriculum maps help us to revise our objectives as well. A curriculum map identifies where in the curiculum learning outcomes are addressed—what is taught, where, and how. Or, the mapping process may help determine whether the curriculum and learning outcomes are aligned, and may reveal gaps in the curriculum.

When mapping, you may discover that some learning outcomes are not being fully addressed (or addressed at all), and you may need to refine your **outcomes**, **course design**, or **curriculum.**

CHARACTERISTICS OF GOOD COURSE OBJECTIVES

From Linda Suskie's blog, *A Common Sense Approach to Assessment & Accreditation*

1 **They are outcomes.** They should describe what students will be able to do after they successfully complete the learning experience, not what they will do or learn during the learning experience. Example: Prepare effective, compelling visual summaries of research.

2 **They are observable.** Outcomes should be written using action verbs, because if you can see it, you can assess it. Example: Identify and analyze ethical issues in the discipline.

3 **They focus on skills.** The emphasis should be on skills, because thinking and performance skills are what employers seek in new hires. I usually suggest that at least half the learning goals of any learning experience focus on skills.

4 **They are relevant.** Effective objectives meet the needs of students, employers, and society. They focus more on what students need to learn than what faculty want to teach. Example: Interpret numbers, data, statistics, and visual representations of them appropriately.

5 **They help students achieve bigger, broader learning goals.** Course learning goals help students achieve program and/or general education learning goals; co-curricular learning goals help students achieve institutional learning goals; program learning goals help students achieve institutional learning goals.

⟶ NOW THAT WE HAVE EFFECTIVE OBJECTIVES: ⟵
IT'S TIME TO MAP

# PUTTING IT ALL TOGETHER
AN EXAMPLE OF CURRICULUM MAPPING

SETTING UP THE MAP

Across the top, create columns for each course in the major

Down the side, create a row for each program learning objective. Remember that your program outcomes should map to our Undergraduate Learning Objectives (ULO's) at Messiah.

Where the courses meet the Program Learning Objectives, note the extent to which the objective is covered ("I" for introduced, "D" for developed, or "M" for mastered), as well as the course objective that maps to your program outcome and the measure you will be using in the course to assess the course objective.

Here's an example...
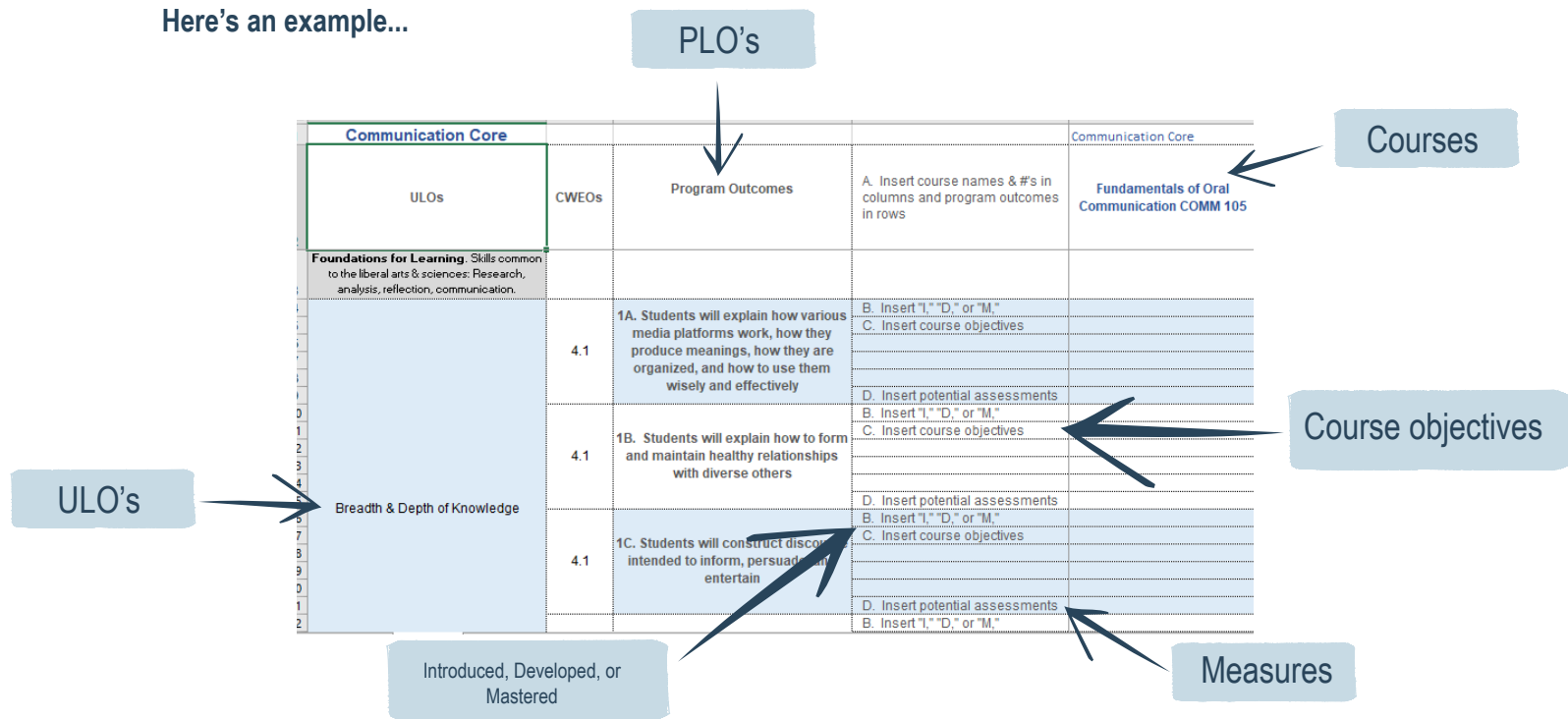
ASSUMPTIONS ABOUT CURRICULUM MAPPING AT MESSIAH

- Meaningful mapping requires effective, department-approved course learning objectives.
- Meaningful mapping requires departmental collaboration; faculty may edit course learning objectives and program learning objectives, and they will gain a shared understanding of how the required curriculum is intended to produce student learning.