

**Crafton Hills College**  
**Student Learning Outcomes**  
**Learning Assessment Development Toolkit**

**Goals of this workbook:**

1. Provide guidance in developing completely mapped-out Learning Improvement Cycles for instructional courses and programs, including the following:
  - clearly articulated student learning outcomes;
  - specific assessment instruments to be used;
  - fully elaborated rubrics for each assessment instrument;
  - specific date(s) the assessments will be given;
  - specific date(s) faculty will meet to discuss the learning evidence collected, and what changes to instruction, course or program content are needed to improve learning.

**Getting Started:**

**What are SLOs and Learning Assessment All About?**

- An ongoing process aimed at understanding and improving student learning.
- Faculty making learning expectations explicit and public.
- Faculty setting appropriate standards for learning quality.
- Systematically gathering, analyzing and interpreting evidence to determine how well student performance matches agreed upon faculty expectations & standards.
- Using results to document, explain and improve teaching & learning performance.

*Tom Angelo AAHE Bulletin, November 1995*

**Roles of Assessment**

***“We assess to assist, assess to advance, assess to adjust”:***

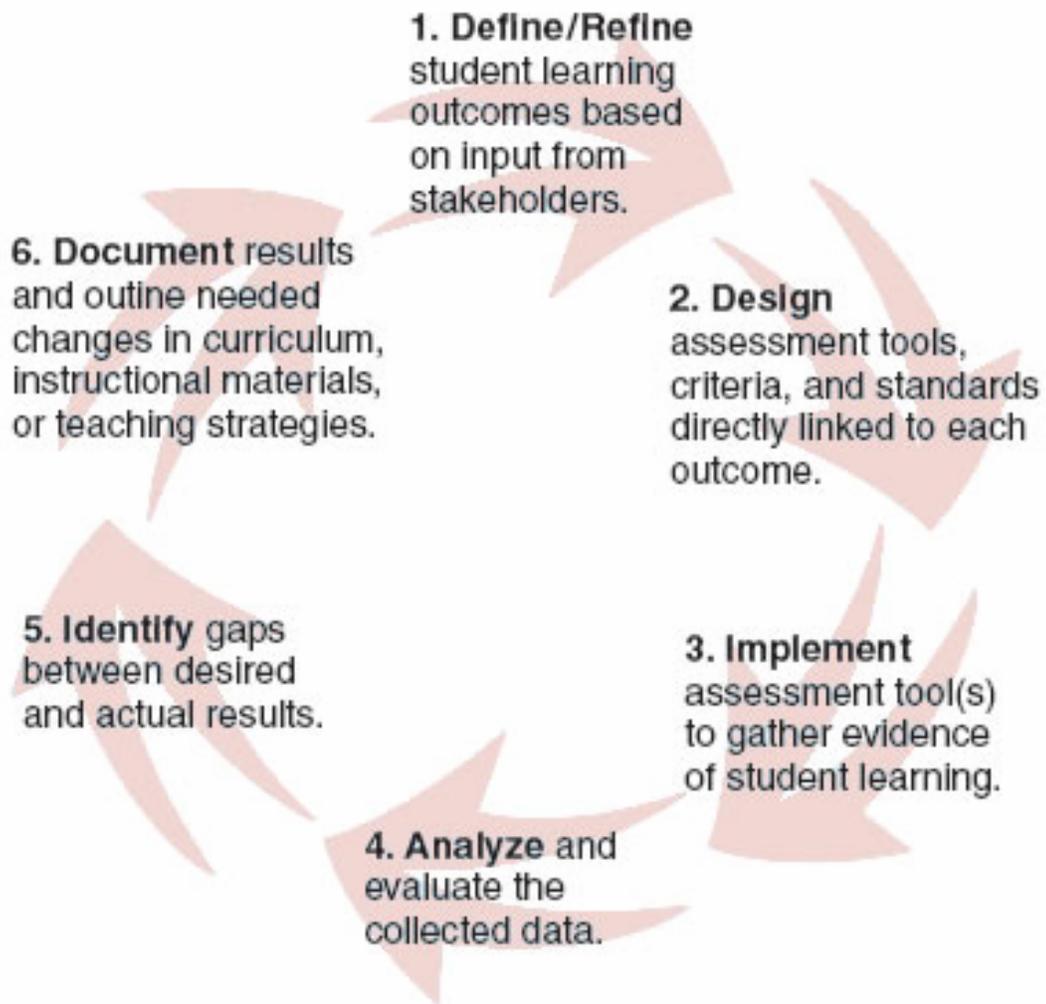
*- Ruth Stiehl,*

*The Assessment Primer:*

*Creating a Flow of Learning Evidence (2007)*

- ***Assist:*** *provide formative feedback to guide student performance*
- ***Advance:*** *summative assessment of student readiness for what’s next*
- ***Adjust:*** *continuous improvement of curriculum, pedagogy.*

**Figure 2** The Assessment Implementation Cycle



## How do objectives and goals differ from learning outcomes?

Student learning outcomes build upon, but are different from, course or program objectives and goals because they represent a new perspective.

Objectives	Outcomes
Objectives represent valuable skills, tools, or content (nuts and bolts) that enable a student to engage a particular subject.	SLOs represent overarching products of the course.
Objectives focus on content and skills important within the classroom or program: what the staff and faculty will do. Often termed the input in the course.	Outcomes express higher level thinking skills that integrate the content and activities and can be observed as a behavior, skill, or discrete useable knowledge upon completing the class.
Objectives can often be numerous, specific, and detailed. Assessing and reporting on each objective for each student may be impossible.	An assessable outcome is an end product that can be displayed or observed and evaluated against criteria.

“Outcomes demonstrate an understanding and application of a subject beyond the nuts and bolts which hold it together; objectives represent the nuts and bolts.” (BC Chemistry Prof).

Course Goal – the purpose of the course

- The goal of this general art course is to cultivate a sense of aesthetic significance through analysis of problems and interpretations as they apply to a variety of disciplines
- The goal of this general education biology course is to help students acquire and retain relevant biologic knowledge/information, teach them to think/apply this knowledge, and stimulate them to continue learning in the field.
- The goal of this nutrition course is to prioritize key nutrition behaviors, identify health and nutrition needs, and integrate these behaviors into health interventions, educational training, and policy.

Course Objectives – the specific teaching objectives detailing course content and activities. (see examples for the nutrition course)

- Review nutritional recommendations and components.
- Discuss differences in nutritional requirements associated with sex, age, and activity.
- Describe causes and consequences of nutritional problems.
- Explain complications of underlying physiologic conditions (e.g. diabetes & mal-absorption).  
Identify key factors involved in correcting nutritional behaviors.
- Describe resources and strategies to treat nutritional disorders.

Course SLO – This is an outcome that describes what a student will do at the end of this nutrition course.

- A student will be able to analyze a documented nutritional problem, determine a strategy to correct the problem, and write a draft nutritional policy addressing the broader scope of the problem.



## **SLOs, Bloom's Taxonomy, Cognitive, Psychomotor, and Affective Domains.**

Benjamin Bloom (1948) developed classifications of intellectual behavior and learning in order to identify and measure progressively sophisticated learning. College faculty are hired because of their discipline expertise and are sometimes unfamiliar with important pedagogical theories that contribute to effective learning. Bloom's taxonomy is especially important in higher education where outcomes need to address the student ability to use information, not just recall and regurgitate concepts. Lower levels of learning are easier to assess but do not adequately display what the student can DO with the knowledge. Refer to the next page for a diagram of Bloom's increasing levels of complex learning.

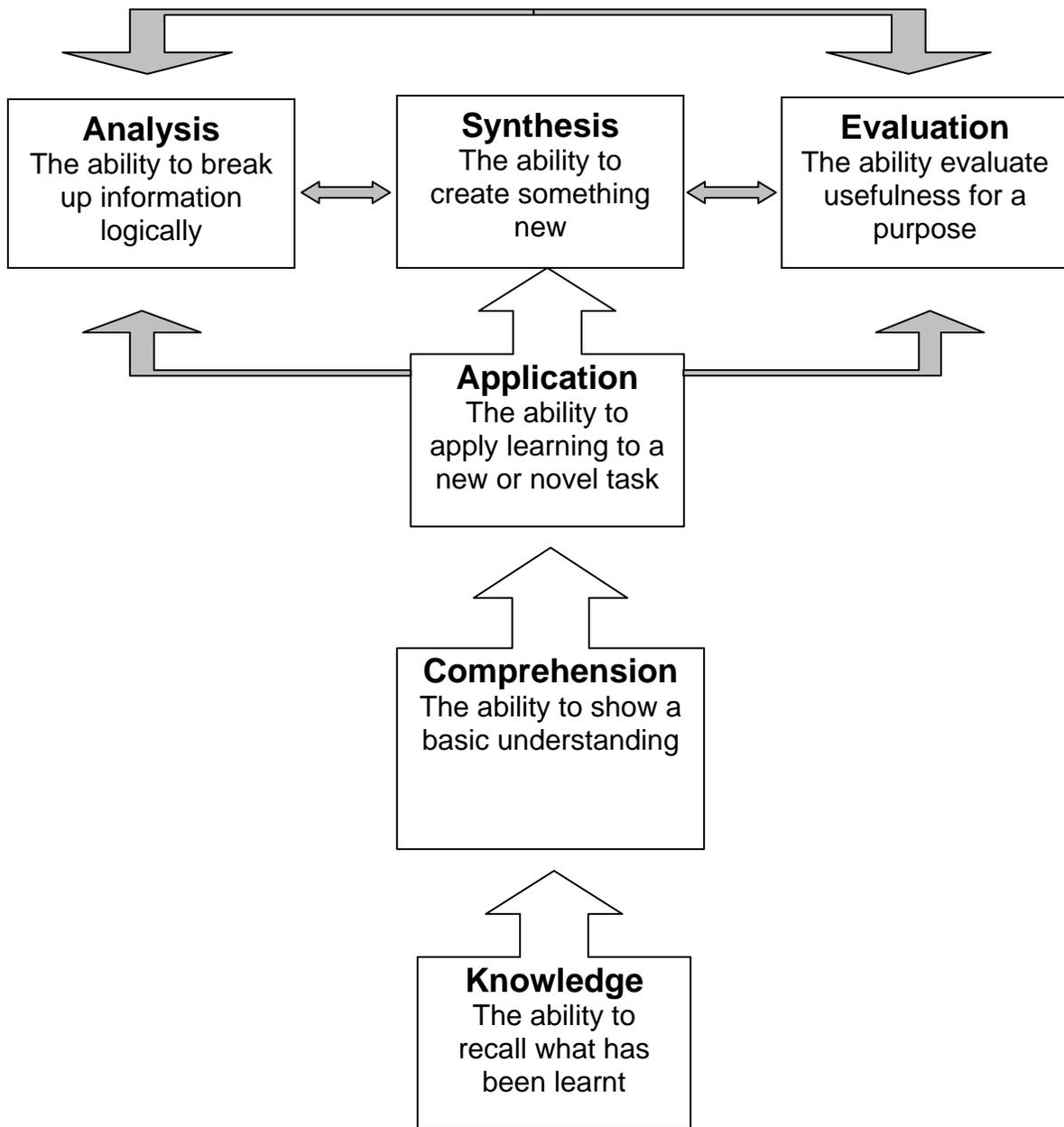
However, learning is not a purely cognitive function; learning occurs differently when it entails performing a skill or re-evaluating behavior. Three domains of learning are recognized:

- Cognitive domain defining knowledge classification. See the following page for a table describing increasing complexity in cognitive learning. Each level has examples of verbs that could be used in writing an SLO at this level. These verbs are not magic or mandatory, our faculty found them helpful, so we used a variety of models and created our own.
- Psychomotor domain (Gronlund, 1970; Harrow, 1972; Simpson, 1972) defining physical skills or tasks classification. Check out the psychomotor table on the following page.
- Affective domain (Krathwhol, Bloom, and Masia, 1964) defining behaviors that correspond to attitudes and values. Please refer to the affective table. Affective outcomes tend to be the hardest to articulate initially and often appear difficult to assess at first glance. However, cognitive outcomes often represent the outcomes most closely related to deeper thinking and life-long learning, as well as the outcomes we value most.

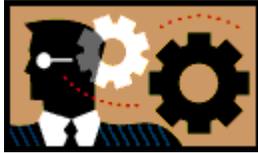
NOTE: Student learning outcomes should address relevant outcomes for each of these domains but must be appropriate to the course.

Think about possible means of assessing the outcomes. The essence of student learning outcomes lies in focusing on the results you want from your course rather than on what you will cover in the course. Ask yourself how you will know when you have accomplished those outcomes

## Interrelationships Between Bloom's Cognitive Levels



Hall, C. & Johnson, A. (1994) Module A5: Planning a Test or Examination. In B. Imrie & C. Hall, Assessment of Student Performance. Wellington, New Zealand: University Teaching Development Centre, Victoria University of Wellington.



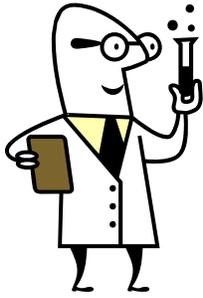
## Cognitive Domain

### Learning Outcomes Related To Knowledge

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Student remembers or recognizes information or specifics as communicated with little personal assimilation.	Student grasps the meaning behind the information and interprets, translates, or comprehends the information.	Student uses information to relate and apply it to a new situation with minimal instructor input.	Student discriminates, organizes, and scrutinizes assumptions in an attempt to identify evidence for a conclusion.	Student creatively applies knowledge and analysis to integrate concepts or construct an overall theory.	Student judges or evaluates information based upon standards and criteria, values and opinions.
Cite Label List Enumerate Identify Imitate Match Name Quote Recall Reproduce State Write	Convert Define Describe Discuss Estimate Explain Generalize Identify Illustrate Locate Paraphrase Restate Summarize	Apply Chart Compute Demonstrate Determine Dramatize Establish Make Manipulate Prepare Project Solve Use	Analyze Compare Contrast Correlate Diagram Dissect Differentiate Distinguish Infer Investigate Limit Outline Separate	Assemble Create Construct Design Develop Formulate Generate Hypothesize Initiate Invent Modify Reframe Synthesize	Access Appraise Conclude Critique Decide Defend Diagnose Evaluate Judge Justify Rank Recommend Support

Basic  
Knowledge  
Level

More Sophisticated  
Higher Level Thinking  
Critical Thinking



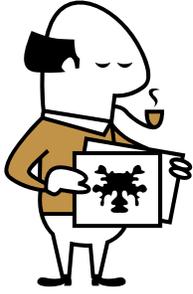
## Psychomotor Domain

### Learning Outcomes Related To Skills

Observe	Model	Recognize Standards	Correct	Apply	Coach
Students translate sensory input into physical tasks or activities.	Students are able to replicate a fundamental skill or task.	Students recognize standards or criteria important to perform a skill or task correctly.	Students use standards to evaluate their own performances and make corrections.	Students apply this skill to real life situations.	Students are able to instruct or train others to perform this skill in other situations.
Hear Identify Observe See Smell Taste Touch Watch  *Usually no outcomes or objectives written at this level.	Attempt Copy Follow Imitate Mimic Model Reenact Repeat Reproduce Show Try	Check Detect Discriminate Differentiate Distinguish Notice Perceive Recognize Select	Adapt Adjust Alter Change Correct Customize Develop Improve Manipulate Modify Practice Revise	Build Compose Construct Create Design Originate Produce	Demonstrate Exhibit Illustrate Instruct Teach Train

Basic Knowledge  
 Basic Skills  
 Level

More Sophisticated Skills  
 Higher Level Abilities  
 Critical Understanding of Performance



## Affective Domain

### Learning Outcomes Related To Attitudes, Behaviors, and Values

<b>Receiving</b>	<b>Responding</b>	<b>Valuing</b>	<b>Organizing</b>	<b>Characterizing</b>
Students become aware of an attitude, behavior, or value.	Students exhibit a reaction or change as a result of exposure to an attitude, behavior, or value.	Students recognize value and display this through involvement or commitment.	Students determine a new value or behavior as important or a priority.	Students integrate consistent behavior as a naturalized value in spite of discomfort or cost. The value is recognized as a part of the person's character.
Accept Attend Describe Explain Locate Observe Realize Receive Recognize	Behave Comply Cooperate Discuss Examine Follow Model Present Respond Show Studies	Accept Adapt Balance Choose Differentiate Defend Influence Prefer Recognize Seek Value	Adapt Adjust Alter Change Customize Develop Improve Manipulate Modify Practice Revise	Authenticate Characterize Defend Display Embody Habituate Internalize Produce Represent Validate Verify

Elementary Values and Behaviors  
 Inherited Value System  
 Egocentric View

More Highly Developed Attitudes  
 Well Thought-out Value System  
 Higher Level Abilities to Identify and  
 Articulate Others' Values

## **Framing Questions for Step 1: Developing Learning Outcomes**

In teams with your colleagues, develop outcome statements for the course, module, unit or other instructional activity where significant student learning occurs.

Getting started: Faculty have reported that the hardest aspect of writing SLOs is simply getting something on paper. That time is now.

1. **REALIZE** –you have been doing this all along, operating from intuitive and professional experience; the task is to communicate and articulate your goals, outcomes, and criteria.
2. As the expert in this discipline and course, begin by thinking about the 5-7 most important things a student should leave your class being able to DO. 5-7 may not seem like enough, you may have 20-50 objectives for a course - but these represent the 5-7 things you will assess - most people would not want to assess and make public 20-50 different objectives.
3. Spend 15 minutes brainstorming, write down words that express knowledge, skills, or values that integrate the most important aspects of your class.
4. If it is helpful, think about these most important things in the context of where students will go next, and how they will use the essential skills, understandings and values they gained from your course.

BRAINSTORM: In the boxes below briefly list words or descriptions of attitudes, skills, or knowledge that you would like your students to know or do as a result of this course or student services program.

Attitudes or values developed as a result of this course	
Skills or performance ability as a result of this course	
Knowledge and concepts they will have as a result of this course	

“What do students need to be able to do OUT THERE that we’re responsible for IN HERE?”      -Ruth Stiehl, *The Outcomes Primer*.

Draft Learning Outcomes for: \_\_\_\_\_

At the conclusion of this module, unit, level, or course, students will be able to:

<b>Student Learning Outcome Checklist</b>	<b>Yes</b>	<b>No</b>
Do the SLOs include active verbs?		
Do the SLOs suggest or identify an assessment?		
Do the SLOs address the expected level of learning for the course using Bloom's Taxonomy as a guideline?		
Do the SLOs address more than one domain (cognitive, psychomotor, and affective)?		
Are the SLOs written as outcomes rather than as objectives? <ol style="list-style-type: none"> <li>1. Language indicates an important overarching concept versus small lesson or chapter objectives.</li> <li>2. Outcomes address what a student will be able to <b>do</b> at the completion of the course.</li> <li>3. SLOs address student competency rather than content coverage.</li> </ol>		
Are the SLOs appropriate for the course? <ul style="list-style-type: none"> <li>• Consistent with the curriculum document of record</li> <li>• Represents a fundamental result of the course</li> <li>• Aligns with other courses in a sequence, if applicable</li> <li>• Represents collegiate level work</li> </ul>		
Will students understand the SLOs?		
Comments or suggestions:		

As you talk to others about SLOs keep these things in mind:

- Each course and classroom has unique factors.
- Disciplines have unique language and culture.
- Cross disciplinary conversations are invaluable.
- Ultimately discipline-specific conversations best define competencies for students.
- Everyone is a learner when it comes to assessment.

As professionals, we are guided by the principles of academic freedom.

## Step 2: Identifying Assessment Activities and Creating Rubrics

- What is Assessment?
  - An ongoing process aimed at understanding & improving student learning.
  - Involves clearly defined criteria & high standards for learning quality.
  - Gathering, analyzing and interpreting **evidence** of student learning.
  - Using this evidence to document and improve student learning.
- What do we mean by *evidence*?
  - Visible indicators that tells us whether learning has occurred.
  - Quality data that allows us to address the criteria/outcomes
  - Allows us to determine what's working and what's not working.
  - The Goal: To create a "culture of evidence" for improving curriculum/learning.
- What do we mean by "quality data?"
  - Valid – accurately represents what it is trying to measure.
  - Reliable – repeated assessment yields the same data (reproducible)
  - Authentic – assessment simulates real-life circumstances
  - Relevant – data answers important questions, not generated because it is easy to measure.
  - Effective- data contributes to improving learning/teaching.
- What are Rubrics?
  - A tool used to evaluate student performance based on specific defined criteria.
  - Reflects the major work traits or characteristics that are expected in student work.
  - Assignment- or Activity-specific.
  - Given to the student when the assignment is announced.
  - Assigns points or values for meeting performance criteria.
- What should be included in a rubric?
  - Major traits or characteristics expected in student work. (Primary Trait Analysis)
  - A range of values that reflect student performance—can include descriptions or examples of what each value represents.
  - Clear criteria for each trait/value – e.g. what warrants a score of "4" vs. a "3".
  - Easy for students to understand.
- Rubrics are useful because . . .
  - They focus instruction on the most important outcomes.
  - They provide formative feedback to students
  - They communicate explicit expectations.
  - They connect assessment to activity, increasing validity.
  - They articulate how scoring/grading is determined.
  - They provide more consistent/Reliable grading.

## Choosing the Right Assessment Tools

Assessment Tool	Pros	Cons
<a href="#">Multiple Choice Exam</a>	<ul style="list-style-type: none"> <li>✓ easy to grade</li> <li>✓ objective</li> </ul>	<ul style="list-style-type: none"> <li>✓ reduces assessment to multiple choice answers</li> </ul>
<a href="#">Licensing Exams</a>	<ul style="list-style-type: none"> <li>✓ easy to score and compare</li> </ul>	<ul style="list-style-type: none"> <li>✓ no authentic testing, may outdate</li> </ul>
<a href="#">Standardized Cognitive Tests</a>	<ul style="list-style-type: none"> <li>✓ comparable between students</li> </ul>	<ul style="list-style-type: none"> <li>✓ heavily dependent to exposure to topics on the test</li> </ul>
<a href="#">Checklists</a>	<ul style="list-style-type: none"> <li>✓ very useful for skills or performances</li> <li>✓ students know exactly what is missing</li> </ul>	<ul style="list-style-type: none"> <li>✓ can minimize large picture and interrelatedness</li> <li>✓ evaluation feedback is basically a yes/no - present/absent - without detail</li> </ul>
Essay	<ul style="list-style-type: none"> <li>✓ displays analytical and synthetic thinking well</li> </ul>	<ul style="list-style-type: none"> <li>✓ time consuming to grade, can be subjective</li> </ul>
<a href="#">Case Study</a>	<ul style="list-style-type: none"> <li>✓ displays analytical and synthetic thinking well</li> <li>✓ connects other knowledge to topic</li> </ul>	<ul style="list-style-type: none"> <li>✓ creating the case is time consuming, dependent on student knowledge from multiple areas</li> </ul>
<a href="#">Problem Solving</a>	<ul style="list-style-type: none"> <li>✓ displays analytical and synthetic thinking well</li> <li>✓ authentic if real world situations are used</li> </ul>	<ul style="list-style-type: none"> <li>✓ difficult to grade due to multiple methods and potential multiple solutions</li> </ul>
Oral Speech	<ul style="list-style-type: none"> <li>✓ easily graded with rubric</li> <li>✓ allows other students to see and learn what each student learned</li> <li>✓ connects general education goals with discipline-specific courses</li> </ul>	<ul style="list-style-type: none"> <li>✓ difficult for ESL students</li> <li>✓ stressful for students</li> <li>✓ takes course time</li> <li>✓ must fairly grade course content beyond delivery</li> </ul>
Debate	<ul style="list-style-type: none"> <li>✓ provides immediate feedback to the student</li> <li>✓ reveals thinking and ability to respond based on background knowledge and critical thinking ability</li> </ul>	<ul style="list-style-type: none"> <li>✓ requires good rubric</li> <li>✓ more than one evaluator is helpful</li> <li>✓ difficult for ESL students</li> <li>✓ stressful for students</li> <li>✓ takes course time</li> </ul>
Product Creation & Special Reports	<ul style="list-style-type: none"> <li>✓ students can display skills, knowledge, and abilities in a way that is suited to them</li> </ul>	<ul style="list-style-type: none"> <li>✓ must have clearly defined criteria and evaluative measures</li> <li>✓ "the look" can not over-ride the content</li> </ul>
<a href="#">Flowchart or Diagram</a>	<ul style="list-style-type: none"> <li>✓ displays original synthetic thinking on the part of the student</li> <li>✓ perhaps the best way to display</li> </ul>	<ul style="list-style-type: none"> <li>✓ more difficult to grade, requiring a checklist or rubric for a variety of different answers</li> </ul>

<b>Assessment Tool</b>	<b>Pros</b>	<b>Cons</b>
	overall high level thinking and articulation abilities	✓ difficult for some students to do on the spot
<a href="#">Portfolios</a>	<ul style="list-style-type: none"> <li>✓ provides the students with a clear record of their work and growth</li> <li>✓ best evidence of growth and change over time</li> <li>✓ students can display skills, knowledge, and abilities in a way that is suited to them</li> </ul> promotes self-assessment	<ul style="list-style-type: none"> <li>✓ time consuming to grade</li> <li>different content in portfolio makes evaluating difficult and may require training</li> <li>bulky to manage depending on size</li> </ul>
Exit Surveys	<ul style="list-style-type: none"> <li>✓ provides good summative data</li> </ul> easy to manage data if Likert-scaled responses are used	<ul style="list-style-type: none"> <li>✓ Likert scales limit feedback, open-ended responses are bulky to manage,</li> </ul>
Performance	<ul style="list-style-type: none"> <li>✓ provides best display of skills and abilities</li> <li>✓ provides excellent opportunity for peer review</li> <li>✓ students can display skills, knowledge, and abilities in a way that is suited to them</li> </ul>	<ul style="list-style-type: none"> <li>✓ stressful for students</li> <li>may take course time</li> <li>some students may take the evaluation very hard - evaluative statements must be carefully framed</li> </ul>
<a href="#">Capstone project or course</a>	<ul style="list-style-type: none"> <li>✓ best method to measure growth overtime with regards to a course or program - cumulative</li> </ul>	<ul style="list-style-type: none"> <li>✓ focus and breadth of assessment are important</li> <li>✓ understanding all the variables to produce assessment results is also important</li> <li>✓ may result in additional course requirements</li> <li>✓ requires coordination and agreement on standards</li> </ul>
<a href="#">Team Project</a>	<ul style="list-style-type: none"> <li>✓ connects general education goals with discipline-specific courses</li> </ul>	<ul style="list-style-type: none"> <li>✓ must fairly grade individuals as well as team</li> <li>✓ grading is slightly more complicated</li> <li>✓ student interaction may be a challenge</li> </ul>
<a href="#">Reflective self-assessment essay</a>	<ul style="list-style-type: none"> <li>✓ provides invaluable ability to evaluate affective growth in students</li> </ul>	<ul style="list-style-type: none"> <li>✓ must use evidence to support conclusions, not just self-opinionated assessment</li> </ul>
<a href="#">Satisfaction and Perception Surveys</a>	<ul style="list-style-type: none"> <li>✓ provides good indirect data</li> <li>data can be compared longitudinally</li> <li>✓ can be used to determine outcomes over a long period of time</li> </ul>	<ul style="list-style-type: none"> <li>✓ respondents may be influenced by factors other than those being considered</li> <li>✓ validity and reliability must be closely watched</li> </ul>

**Rubrics:**

On the pages that follow, you will find a variety of sample rubrics from a variety of disciplines. These are provided to illustrate that rubrics can take many different forms, and that you as instructors have the flexibility to design rubrics to suit your specific assessment requirements.

## Developmental English Essay Rubric

	<b>1 Needs Work</b>	<b>2 Adequate</b>	<b>3 Good</b>	<b>4 Excellent</b>
<b>Assignment Fulfillment</b>	Essay is off-topic and/or fails to fulfill the directives (i.e., minimum number of quotes, etc.).	Essay is on-topic but fails to fulfill some of the directives (i.e., minimum number of quotes, etc.).	Essay is on-topic and fulfills most of the directives (i.e., minimum number of quotes, etc.).	Essay is on-topic and fulfills all directives (i.e., minimum number of quotes, etc.).
<b>Thesis</b>	Thesis is missing, unfocused or vague.	Thesis is clear and engages the topic appropriately, but is not original.	Thesis is clear, engages the topic appropriately, and is somewhat original.	Thesis is clear, insightful, and original.
<b>Organization/ Coherence/ Focus</b>	No clearly defined or apparent organization. Paragraphs lack focus and cohesion.	Sequence of ideas is functional but may have abrupt or illogical shifts.	Sequence of ideas is effective but may lack smooth transitions.	Sequence of ideas and transitions between paragraphs are effective.
<b>Development &amp; Support</b>	Body paragraphs contain summaries or generalizations that lack relevant supporting evidence and analysis.	Body paragraphs offer a functional level of evidence and analysis which at times may be too general.	Body paragraphs offer solid, convincing, and somewhat original analysis of relevant evidence.	Body paragraphs offer richly developed, insightful, original, and convincing analysis of relevant evidence.
<b>Grammar &amp; Usage</b>	Frequent errors in grammar, usage and spelling.	Some errors in grammar, usage and spelling. Sentences may be simplistic, choppy or awkward.	Occasional errors in grammar, usage and spelling. Demonstrate syntactical maturity through varied sentence structure.	Few if any grammatical or proofreading errors. Demonstrate syntactical maturity through varied sentence structure.
<b>Basic Research &amp; Documentation Skills</b>	Neglects relevant sources and/ or improperly cites sources according to MLA format.	Inconsistently integrates relevant sources and quotes to substantiate claims, and demonstrates an inconsistent use of MLA format.	Integrates relevant sources and quotes to substantiate claims, using MLA format with occasional lapses in usage.	Smoothly integrates relevant sources and quotes to substantiate claims, consistently using MLA format.
<b>Overall Holistic Score</b>				

<b>Analytic Rubric for Grading Oral Presentations</b>						
	Not Acceptable	Below Expectation	Satisfactory	Above Satisfactory	Exemplary	Score
Organization	No apparent organization. Evidence is not used to support assertions  (0-1)	Poorly organized. Evidence is not enough to clearly support assertions.  (2-3)	The presentation has a focus and provides some evidence which supports conclusions.  (4-5)	Presentation is well-organized and evidence largely supports its conclusion.  (6-7)	The presentation is carefully organized and provides convincing evidence to support conclusions.  (8)	
Content	The content is inaccurate or overly general. Listeners are unlikely to learn anything or may be misled.  (0-1)	The content is often inaccurate or generalized. Listeners learned little from the presentation.  (2-3)	The content is generally accurate, but incomplete. Listeners may learn some isolated facts, but they are unlikely to gain new insights about the topic.  (4-6)	The content is mostly accurate and complete. Audience is hearing facts and may gain some insights.  (7-8)	The content is accurate and complete. Listeners are likely to gain new insight about the topic.  (9)	
Style	The speaker appears anxious and uncomfortable, and reads notes, rather than speaks. Listeners are largely ignored.  (0-1)	The speaker is uneasy. Eye contact is only occasional.  (2-3)	The speaker is generally relaxed and comfortable, but too often relies on notes. Listeners are sometimes ignored or misunderstood.  (4-5)	Speaker is mostly confident and familiar with notes. Eye contact is good  (6-7)	The speaker is relaxed and comfortable speaks without undue reliance on notes, and interacts effectively with listeners.  (8)	
Total Score						

**Critical Thinking  
Assessment Grid**

0-1 point  
F-D (00-69%)

2 points  
C (70-79%)

3 points  
B (80-89%)

4 points  
A (90-100%)

<p><b>1: analysis/ assessment of deductive arguments</b></p>	<p>Incorrect applications. Reveals a poor understanding of basic logical concepts, deductive forms or methods for evaluating validity and soundness.</p>	<p>Demonstrates a fair understanding of deductive forms and assessment methods, and is able to apply them, though with some errors.</p>	<p>Demonstrates a good understanding of deductive forms and assessment methods, and is able to apply them with only a few errors.</p>	<p>Demonstrates thorough grasp of various deductive forms and assessment methods (e.g., use of symbols, Venn diagrams, truth functions, etc.) and applies them correctly.</p>
<p><b>2: analysis/assessment of inductive arguments</b></p>	<p>Incorrect applications. Reveals a poor understanding of basic logical concepts, inductive forms or methods for evaluating strength and cogency.</p>	<p>Demonstrates a fair understanding of inductive forms and assessment methods, and is able to apply them, though with some errors.</p>	<p>Demonstrates a good understanding of inductive forms and assessment methods, and is able to apply them with only a few errors.</p>	<p>Demonstrates a thorough grasp of various inductive forms and assessment methods (e.g., basic statistical methods, Mill's methods, fallacies, etc.) and applies them correctly.</p>
<p><b>3: analysis/assessment of explanatory theories</b></p>	<p>Reveals a poor understanding of the criteria of adequacy for empirical theories and is unable to use these concepts to assess a theoretical claim. May also have multiple errors of application or interpretation.</p>	<p>Demonstrates a fair grasp of the concept of <i>testability</i> and is able to use it and at least some of the other criteria. May have some errors of application or interpretation.</p>	<p>Demonstrates a good grasp of the concept of <i>testability</i>, and the other criteria of adequacy for empirical theories, and correctly uses most of the criteria. Few or minor errors.</p>	<p>Demonstrates a thorough grasp of the concept of <i>testability</i>, and the other criteria of adequacy for empirical theories, and successfully deploys the criteria. No major errors.</p>
<p><b>4: construction of a novel argument</b></p>	<p>The student fails to construct an argument with a clear logical structure. The conclusion is uninteresting or poorly supported. Has problematic premises or commits an obvious fallacy. Unable to represent argument form.</p>	<p>The student can construct a novel but unchallenging argument, having a fairly clear logical form. May have problematic premises. Avoids obvious fallacies. May contain some errors in the construction or formal representation.</p>	<p>The student can construct a somewhat challenging and interesting argument that is well-formed, valid or strong, has few problematic premises, and avoids major fallacies. Few or no errors in the construction or formal representation.</p>	<p>The student constructs a challenging and interesting argument that is well-formed, valid or strong, with no obviously problematic premises, and no fallacies. No significant errors in the construction or formal representation.</p>

**Golf Bunker Shot Rubric (#3)**

**Draft 2/5/07**

**SLO- Be able to successfully hit balls from greenside bunkers using proper stance, ball position and swing technique.**

	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Excellent</b>
<b>Success of shot</b> (balls struck from greenside bunker in an attempt to hit the green)	Student is able to hit balls out of the bunker 10% of the time or less	Student is able to hit balls out of the bunker 25% of the time	Student is able to hit balls out of the bunker the majority of the time and on the green occasionally	Student is able to hit balls out of the bunker at least 70% of the time and on the green the majority of the time
<b>Proper stance</b> (open, weight forward, good golf posture)	Stance is incorrect and contributes to lack of success	Some components of the stance are correct but student is rarely successful	Most components of the stance are correct and student is occasionally successful	All components of the stance are present and the student is often successful
<b>Ball position</b> (ball center to back in stance, proper distance from golfer)	Ball is almost always incorrectly placed in stance and contributes to lack of success	Ball is primarily either positioned the incorrect distance from the golfer or too far forward in stance, contributing to relative lack of success	Ball is usually positioned correctly in stance, some success is evident	Ball is almost always positioned correctly in stance and student demonstrates success
<b>Swing technique</b> ("down the target line swing", open club face, smooth and rhythmic, eyes behind the ball)	Swing technique is incorrect in at least three of four key characteristics, leading to lack of success	Two of four characteristics of proper swing technique are present; success is effected by improper technique	Three of four characteristics of proper swing technique are present, leading to a majority of successful shots and occasional accuracy	Three to four characteristics of proper swing technique are present, success and accuracy result

**Rubric for a Research Project**

**Student Name(s)** \_\_\_\_\_

	<b>Thesis/Problem/Question</b>	<b>Information Seeking/Selecting and Evaluating</b>	<b>Analysis</b>	<b>Synthesis</b>	<b>Documentation</b>	<b>Product/Process</b>
<b>4</b>	Student(s) posed a thoughtful, creative question that engaged them in challenging or provocative research. The question breaks new ground or contributes to knowledge in a focused, specific area.	Student(s) gathered information from a variety of quality electronic and print sources, including appropriate licensed databases. Sources are relevant, balanced and include critical readings relating to the thesis or problem. Primary sources were included (if appropriate).	Student(s) carefully analyzed the information collected and drew appropriate and inventive conclusions supported by evidence. Voice of the student writer is evident.	Student(s) developed appropriate structure for communicating product, incorporating variety of quality sources. Information is logically and creatively organized with smooth transitions.	Student(s) documented all sources, including visuals, sounds, and animations. Sources are properly cited, both in-text/in-product and on Works-Cited/Works-Consulted pages/slides. Documentation is error-free.	Student(s) effectively and creatively used appropriate communication tools to convey their conclusions and demonstrated thorough, effective research techniques. Product displays creativity and originality.
<b>3</b>	Student(s) posed a focused question involving them in challenging research.	Student(s) gathered information from a variety of relevant sources--print and electronic	Student (s) product shows good effort was made in analyzing the evidence collected	Student(s) logically organized the product and made good connections among ideas	Student(s) documented sources with some care, Sources are cited, both in-text/in-product and on Works-Cited/Works-Consulted pages/slides. Few errors noted.	Student(s) effectively communicated the results of research to the audience.
<b>2</b>	Student(s) constructed a question that lends itself to readily available answers	Student(s) gathered information from a limited range of sources and displayed minimal effort in selecting quality resources	Student(s) conclusions could be supported by stronger evidence. Level of analysis could have been deeper.	Student(s) could have put greater effort into organizing the product	Student(s) need to use greater care in documenting sources. Documentation was poorly constructed or absent.	Student(s) need to work on communicating more effectively
<b>1</b>	Student(s) relied on teacher-generated questions or developed a question requiring little creative thought.	Student(s) gathered information that lacked relevance, quality, depth and balance.	Student(s) conclusions simply involved restating information. Conclusions were not supported by evidence.	Student(s) work is not logically or effectively structured.	Student(s) clearly plagiarized materials.	Student(s) showed little evidence of thoughtful research. Product does not effectively communicate research findings.

## Developing your own Assessment Plan/Performance Criteria:

To assist you in documenting your own plan for assessing a course or activity, the following Map is provided, with examples from current CHC Courses and programs (See pages that follow). Follow these steps as you complete the map:

1. In the upper left-hand box on the map, write the student learning outcome you wish to assess. This statement should state explicitly what you expect students should be able to demonstrate that they have learned as a result of the course or unit.
2. In the middle box, describe how you intend to gather evidence of student learning. Identify the student population you will assess, when the assessment will take place, how it will be conducted, and who will be involved.
3. In the upper right-hand box – list or describe any specific assignments, activities, tests or assessment instruments that will be used to assess student learning.
4. In the Rubric grid below, identify the common or key traits that will be evaluated in the student work collected. Next, for each trait, develop descriptive criteria for each level or step in the rubric, ranging from “No Evidence” of student learning, to what would be considered “Excellent.” In short, describe what each step in the rubric “looks like.”
  - It is important to note that rubrics can take many forms. The rubric grid provided is intended as a guide – you are not limited to only three traits (Affective, Cognitive and Psychomotor learning domains), nor to a 0-3 scale in your rubric. You are encouraged to develop performance criteria that match your learning expectations, which will yield adequate evidence of student learning for the activity assessed. Please contact the Instructional Assessment Specialist if you would like help with creating a rubric, or with any step in the SLO Cycle.

## Crafton Hills College Student Learning Outcomes SLO /Assessment/ Rubric Map

Department:

Course:

Faculty Involved:

**Student Learning Outcome:** *What do students need to demonstrate that they know/can do in your course/area?*

**Who/What/How Often?** *Describe the approach you will take to assess the outcome (all sections, sampling of students across sections, assessed each semester, fall only, etc.)*

**Assessment Activities:** *What activities / assignment / instrument/ methodology will you use to produce evidence of student achievement of this outcome?*

Student Learning Outcome: <hr/> <hr/> <hr/> <hr/>		Assessment Strategy/Approach for this SLO: <hr/> <hr/> <hr/> <hr/>		Assessment Activity/for SLO #1 <hr/> <hr/> <hr/> <hr/>
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**Rubric:** *For the activity identified above, what specific traits or criteria will you measure as evidence of student performance of this outcome? Please provide a description for each step in the rubric (e.g. what does it "look like" when students*

Common Traits	No Evidence (0)	Inadequate (1)	Adequate (2)	Excellent (3)
(Affective domain)				
(Cognitive domain)				
(Psychomotor domain)				

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## Crafton Hills College Student Learning Outcomes SLO /Assessment/ Rubric Map

Department: **Health/Physical Ed**

Course:

Faculty Involved:

**Student Learning Outcome:** *What do students need to demonstrate that they know/can do in your course/area?*

**Student Learning Outcome:**

To appreciate one's own physical, mental and emotional health, and to demonstrate the knowledge and/or skills associated with actions necessary for optimum health and physical efficiency.

**Who/What/How Often?** *Describe the approach you will take to assess the outcome (e.g. all sections, sampling of students across sections, assessed each semester, fall only, etc.)*

**Assessment Strategy for this SLO:**

This SLO will be assessed for all students taking Health 263 or a Physical Education Course (Personalized, Individual or Group Activity). All Students seeking to receive G. E. credit for this course, shall develop a personalized improvement plan, evaluated using the rubric below, and must receive a score of 3 in at least 2 of the criteria below (no lower than 2 on the 3rd).

**Assessment Activities:** *What activities / assignment / instrument/ methodology will you use to produce evidence of student achievement of this outcome?*

**Assessment Activity/for this SLO:**

Students pursue a personal change/improvement activity, consistent with the goals of the course, aimed at improving their own health or physical condition.

**Rubric:** *For the activity identified above, what specific traits or criteria will you measure as evidence of student performance of this outcome? Please provide a description for each step in the rubric (e.g. what does it "look like" when students*

Primary Traits/Criteria:	No Evidence (0)	Inadequate (1)	Adequate (2)	Excellent (3)
<p>The student values the practices and attitudes that contribute toward sound physical, mental and emotional health by undertaking the improvement activity.</p> <p>(Affective domain)</p>	Student did not undertake the activity, or showed no evidence of achievement in this area.	Student expresses a vague notion of a change they want to pursue, but shows little or no commitment to embarking on the improvement activity. Student may have started the activity, but has not continued the activity in earnest.	Student has established a goal and expresses a desire for change or improvement, but effort and commitment fluctuates or is inconsistent.	Student shows significant evidence of attitudinal change, by demonstrating motivation and consistent, sustained commitment to the change they are pursuing.
<p>Student can describe the physiological and scientific soundness of the improvement activity that they are undertaking, and link that information to specific benefits they are seeking.</p> <p>(Cognitive domain)</p>	Student did not undertake the activity, or showed no evidence of achievement in this area.	Student displays a largely uninformed perspective on the change activity they may have identified. They have not taken the time to explore the benefits of various activities that could result in improved health, fitness or wellness.	Student has a general idea of why their improvement activity is sound, and may be able to articulate some of the principles that support their actions and choices, but some of their reasoning may be vague, or incorrect.	Student can provide a complete rationale for the approach, methods and goals of the improvement activity they have undertaken. They articulate accurate information or data supporting the soundness of their activity.
<p>Student persists and sustains the execution of the improvement activity that they are undertaking, and practices it consistently and correctly.</p> <p>(Psychomotor domain)</p>	Student did not undertake the activity, or showed no evidence of achievement in this area.	Student shows very little effort. They may have participated in an activity or two in class, but have not followed this up with a continued effort outside of class. Their actions are indicative of a lack of motivation and commitment to the change activity.	Student has shown effort, with occasional lapses indicating an inconsistent commitment to the change activity. Their effort may have yielded little or no observable improvement due to a lack of consistent, sustained effort.	Student demonstrates a sustained consistent effort in the activity they are pursuing, and may have already observed improvements in their own health, fitness and wellness, which in turn, increases their motivation, effort and commitment.

Date Created:

eLumen Entry Date:

**Crafton Hills College**  
**Student Learning Outcomes**  
**SLO /Assessment/ Rubric Map**

Department: **English 101**

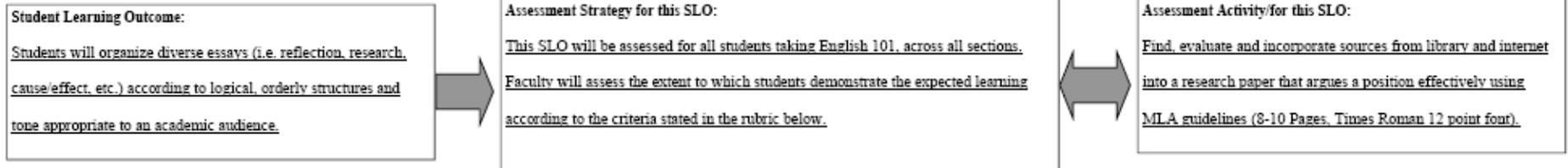
Course:

Faculty Involved:

**Student Learning Outcome:** *What do students need to demonstrate that they know/can do in your course/area?*

**Who/What/How Often?** *Describe the approach you will take to assess the outcome (e.g. all sections, sampling of students across sections, assessed each semester, fall only, etc.)*

**Assessment Activities:** *What activities / assignment / instrument/ methodology will you use to produce evidence of student achievement of this outcome?*



**Rubric:** *For the activity identified above, what specific traits or criteria will you measure as evidence of student performance of this outcome? Please provide a description for each step in the rubric (e.g. what does each step "look like"?)*

Primary Traits/Criteria:	Needs Work (0)	Adequate (1)	Good (2)	Excellent (3)
<b>Fulfills assignment requirements.</b>	Needs work -- Essay is off-topic and/or fails to fulfill the directives of the assignment.	Adequate -- Essay is on-topic but fails to fulfill some of the directives of the assignment.	Good -- Essay is on topic and fulfills most of the directives of the assignment.	Excellent -- Essay is on topic and fulfills all of the directives of the assignment.
<b>A clear, insightful, original thesis statement.</b>	Needs Work -- Thesis statement is missing, unfocused or vague.	Adequate -- Thesis statement is clear and engages the topic appropriately, but is not original.	Good -- Thesis statement is clear, engages the topic appropriately, and is somewhat original.	Excellent -- Thesis is clear, insightful and original.
<b>Organization/Coherence/Focus of research paper</b>	Needs Work -- No clearly defined or apparent organization. Paragraphs lack focus and cohesion.	Adequate -- Sequence of ideas is functional but may have abrupt or illogical shifts.	Good -- Sequence of ideas is effective but may lack smooth transitions.	Excellent -- Sequence of ideas and transitions between paragraphs are effective.
<b>Development &amp; supporting evidence.</b>	Needs Work -- Body paragraphs contain summaries or generalizations that lack relevant supporting evidence and analysis.	Adequate -- Body paragraphs offer a functional level of evidence and analysis which at times may be too general.	Good -- Body paragraphs offer solid, convincing and somewhat original analysis of relevant evidence.	Excellent -- Body paragraphs offer richly developed, insightful, original, and convincing analysis of relevant evidence.
<b>Adequate grammar and usage.</b>	Needs Work -- Frequent errors in grammar, usage and spelling.	Adequate -- Some errors in grammar, usage, and spelling. Sentences may be simplistic, choppy or awkward.	Good -- Occasional errors in grammar, usage and spelling. Demonstrate syntactical maturity through varied sentence structure.	Excellent -- Few if any grammatical or proof-reading errors. Demonstrate syntactical maturity through varied sentence structure.
<b>Basic research &amp; documentation.</b>	Needs Work -- Frequent errors in grammar, usage and spelling.	Adequate -- Inconsistently integrates relevant sources and quotes to substantiate claims, and demonstrates an inconsistent use of MLA format.	Good -- Integrates relevant sources and quotes to substantiate claims, using MLA format with occasional lapses in usage.	Excellent -- Smoothly integrates relevant sources to substantiate claims, consistently using MLA format.

Date Created:

eLumen Entry Date:

## Evaluating Student Learning Outcome Evidence – Guiding Questions:

Once you have conducted your learning assessment, the next step in the process is to meet and discuss the evidence you have collected with your colleagues. The following questions are intended to serve as a guide for that discussion. It is critical that the responses to the following questions are recorded and documented as part of the SLO Improvement Cycle.

1. Briefly summarize the Student Learning Outcome assessed, and the method used to assess it.
2. Describe the kind of evidence that you collected to evaluate student learning as stated by the outcome. Is the data adequate for making observations and/or conclusions?
3. Has all evidence been collected and documented? Are there any data missing or incomplete? Are there samples of evidence available?
4. Looking at the results, how many students met or exceeded the stated outcome, based on the evidence present. What observations or explanations can you attribute this result to?
5. How many students performed below the stated outcome, based on the evidence present? What observations or explanations can you attribute this result to?
6. Were there students who were not assessed? What was the reason(s) for students who were not assessed? Are the numbers of non-assessed students a significant factor in the overall success of the course or program being assessed?
7. What overall observations do you have about the results? Are there significant patterns or trends in the data?
  - a. For instance, for the students who met or exceeded expectations, were there circumstances that allowed for them to succeed?
  - b. For students who didn't meet expectations, what circumstances affected their
  - c. Were there some elements that students did well, and others that students performed less well?
8. Based on your findings, what worked well in your course or program, as reflected by the data?
9. Based on your findings, what changes do you believe are necessary to improve student learning? Specifically, what changes do you suggest in the following:
  - a. Instructional approach
  - b. Course content, texts and other learning resources
  - c. Structure of the course or program – Curricular as well as co-curricular elements.
10. What kinds of learning evidence would help you make better, more precise observations? What would you change or modify in your assessment approach?
  - a. Learning Outcomes (modify existing ones, add new ones)
  - b. Assessment approach
  - c. Rubrics

Finally – What did you learn from this cycle of assessment that will help you as an educator?