Revising Taft College’s SLOs

August 21, 2008

Prewriting Exercise

The Assessment Cycle

Taft College Institutional SLOs

SLOs vs. Course Objectives

SLO Checklist

Guidelines for Writing SLOs

Sample SLOs from Cabrillo

English 2 SLOs from Bakersfield College

English B1A SLOs from Bakersfield College

Microbiology SLOs from Bakersfield College

Math A SLOs from Bakersfield College

Chemistry 11 SLOs from Bakersfield College

Speech B5 SLOs from Bakersfield College

Spanish 4 SLOs from Bakersfield College

Library SLOs from Skyline College

Philosophy SLOs from Skyline College

Bloom’s Taxonomy: Cognitive Domain

Bloom’s Taxonomy: Psychomotor Domain

Bloom’s Taxonomy: Affective Domain

Definitions

1
Prewriting Exercise

1. Think of your favorite class to teach.

2. Imagine an average student, having completed your class and graduated Taft College, in a real world setting in the future.

3. What can that student now do, that he or she could not do before? List the knowledge, skills, and attitudes that the hypothetical student now possesses as a result of his or her educational experience in your class.
The Assessment Cycle

1. Identify
2. Assess
3. Interpret
4. Improve

The cycle is continuous, moving from identify to improve, then interpret, and finally assess, before returning to identify.
Taft College Institutional Level Student Learning Outcomes*

1. **Communication**
   Graduates should be able to deliver focused and coherent presentations; demonstrate active, discerning listening and speaking skills in lectures and discussions; demonstrate active reading skills and thorough comprehension; and write clearly, thoroughly, and effectively.

2. **Computation**
   Graduates should be able to solve problems involving data gathering and analysis, apply mathematical concepts, and use technology in these processes.

3. **Critical and Creative Thinking**
   Graduates should be able to analyze, interpret, explain and evaluate texts, ideas, works of art, and scientific and mathematical problems.

4. **Community/Global Consciousness and Responsibility**
   Graduates should be able to demonstrate social and cultural awareness, ethical behavior, effective and sensitive communication, and a commitment to learning.

5. **Discipline Content**
   Graduates should be able to clearly demonstrate mastery and application of course content.

Sharyn Eveland presented proposed Institutional SLOs after researching those of other schools. In August, 2007, an initial set was proposed. Those were distributed to divisions, discussed in division meetings, and addressed by faculty. Revisions were determined, based on the suggestions from divisions, in a campus wide dialog which took place over a series of meetings of the academic senate. This version of the institutional SLOs was agreed upon as such by process of The Academic Senate, and were drafted as such in early 2008.
Student Learning Outcomes (SLOs) versus Course Objectives

Student Learning Outcomes for the classroom describe the knowledge, skills, abilities or attitudes that a student can demonstrate by the end of your course.

- Don’t think about content or coverage. Consider what students should be able to DO with what they’ve learned by the end of the semester.
- How will students demonstrate this?
- What can they produce to show faculty that they have learned to apply their new knowledge?

When trying to define Student Learning Outcomes for a course, think of the big picture. SLOs:

- Describe the broadest goals for the class, ones that require higher-level thinking abilities, as described in Bloom’s Taxonomy.
- Require students to synthesize many discreet skills or areas of content.
- Ask them to then produce something – papers, projects, portfolios, demonstrations, performances, art works, exams, etc. – that applies what they have learned.
- Require faculty to evaluate or assess the product to measure a student’s achievement or mastery of the outcomes.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives describe skills, tools or content that a student will master by the end of a course.</td>
<td>Outcomes describe over-arching goals that a student will be able to demonstrate by the end of a course</td>
</tr>
<tr>
<td>Objectives require the use of basic thinking skills such as knowledge, comprehension, and application.</td>
<td>Outcomes require the use of higher level thinking skills such as analysis, synthesis, and evaluation (as described in Bloom’s Taxonomy)</td>
</tr>
<tr>
<td>Objectives do not necessarily result in a product. Most often, objectives are synthesized or combined to produce something that measures an outcome.</td>
<td>Outcomes result in a product that can be measured and assessed.</td>
</tr>
</tbody>
</table>
Course objectives are on a smaller scale, describing small, discreet skills or “nuts and bolts” that require basic thinking skills. They are subset of outcomes. Think of objectives as the building block used to produce whatever is used to demonstrate mastery of an outcome. Objectives can be practice and assessed individually, but are usually only a portion of an overall project or application.

**SLO or Objective?**

The statements below were written for programs and courses. Analyze the statements to determine whether they are goals, objectives, or student outcomes.

<table>
<thead>
<tr>
<th>Goal (Engineering course)</th>
<th>This course introduces senior engineering students to the design of concrete components of structure and how to integrate them into overall design structures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO (Engineering course)</td>
<td>Functioning as a member of a team, the student will design and present a concrete structure which compiles with engineering standards.</td>
</tr>
<tr>
<td>Goal (Geography course)</td>
<td>This course will develop perspectives on GIS for representing data, information, knowledge—interplay among reality, database, and map display.</td>
</tr>
<tr>
<td>Objective (English course)</td>
<td>Locate and evaluate outside sources for use in developing their own analysis.</td>
</tr>
<tr>
<td>SLO (Epidemiology course)</td>
<td>Given a scenario concerning a specific population, define and assess the health status of that population and identify factors influencing the use of health services.</td>
</tr>
<tr>
<td>SLO (Ecology course)</td>
<td>Critically review the scientific literature, synthesize the findings across studies, and make appropriate ecological recommendations based on current knowledge.</td>
</tr>
<tr>
<td>Objective (Nutrition course)</td>
<td>Describe differences in nutritional requirements associated with sex, age, and activity.</td>
</tr>
<tr>
<td>SLO (Nutrition course)</td>
<td>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.</td>
</tr>
<tr>
<td>Objective (Math course)</td>
<td>Given the description of a graph of a line, write the equation of the line.</td>
</tr>
<tr>
<td>SLO (Math course)</td>
<td>Given data, students will analyze information and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content.</td>
</tr>
</tbody>
</table>
Some Criteria for SLOs

<table>
<thead>
<tr>
<th>Student Learning Outcome Checklist</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the SLOs include active verbs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the SLOs suggest or identify an assessment?</td>
<td></td>
<td></td>
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<tr>
<td>Do the SLOs address the expected level of learning for the course using Bloom's Taxonomy as a guideline?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the SLOs written as outcomes rather than as objectives?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Language indicates an important overarching concept versus small lesson or chapter objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Outcomes address what a student will be able to do at the completion of the course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SLOs address student competency rather than content coverage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the SLOs appropriate for the course?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Consistent with the curriculum document of record</td>
<td></td>
<td></td>
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<tr>
<td>• Represent a fundamental result of the course</td>
<td></td>
<td></td>
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<tr>
<td>• Align with other courses in a sequence, if applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Represent collegiate level work</td>
<td></td>
<td></td>
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</tbody>
</table>

Remember, the focus on SLOs is not What did we cover? Or What did we teach?

It is: What can students do or produce at the end of the course that they couldn’t at the beginning?

(Thanks to Kate Pluta and Janet Fulks at Bakersfield College, and to Cabrillo College faculty for some of the above information and examples)
Guidelines for Writing Course Level SLOs from Bakersfield College’s Assessment Page, <http://www2.bakersfieldcollege.edu/assessment/>

Course Level SLOs

What do you look for?

1. **Course Level SLOs are student centered.**
   *Bad Idea:* We will go over the causes of the Civil War.

   *Better Idea:* The students will compare and contrast the two sides of the Civil War and discuss the pressures that lead to the conflict.

2. **Course Level SLOs should have action verbs.**
   *Bad Idea:* The students will be better theologians.

   *Better Idea:* The students will describe several major attributes of God and support these attributes with Bible verses.

3. **Course Level SLOs should use higher level thinking skills.**
   *Bad Idea:* The students will learn the words to “You Ain't Nothin' but a Hound Dog”

   *Better Idea:* The students will identify and analyze the imagery in early Rock and Roll and describe the impact of key songs upon the genre.

4. **Course Level SLOs should be measurable.**
   *Bad Idea:* The students will hone river-dancing skills.

   *Better Idea:* The students perform a 4 minute river dancing routine with minimal errors.
5. **Course Level SLOs should be summative.**

   *Bad Idea:* The student will demonstrate the ability to play an “A” on the pan-flute.

   The student will demonstrate the ability to play a “G” on the pan-flute.

   The student will demonstrate the ability to play an “F” on the pan-flute.

   *Better Idea:* The students will perform “Ode to Joy” on the pan-flute with minimal errors.

6. **Course level SLOs should cover affective, cognitive, and kinesthetic domains.**

   *Affective:* The students will view theology as a science and apply the scientific process to a major tenet of Islam or Christianity.

   *Cognitive:* The students will analyze the Magna Carta and compare the rights of criminals then and now.

   *Kinesthetic:* The students will hit 5 of 8 pitches thrown by the pitching machine.
Sample Student Learning Outcomes from Cabrillo College, <http://pro.cabrillo.edu/slos/index.html>

Here are sample outcomes developed by Cabrillo faculty for course outlines. Note the verbs used and how they reflect higher level thinking skills, thus making them SLOs rather than objectives.

CEM 151 Construction Fundamentals: Principles and Practices

1. **Construct** a building applying the skills and knowledge obtained in this class.

ANTHRO 13 Forensic Anthropology

1. Using the basic principles of forensic anthropology, **analyze** skeletonized human remains to determine sex, age at death, height and genetic ancestry.

ATH 15HH Preseason Intercollegiate Water Polo - Men

1. **Analyze and customize** principles of cardiovascular fitness, muscular strength, endurance, and flexibility to water polo, and **apply** them to prevent injury.

DANCE 58 Street Dance and Hip Hop

1. **Perform**, with an increasing degree of proficiency, simple Hip Hop movements, **demonstrating** increasing control of skills pertaining to memorization, physical safety, body awareness, alignment, and aesthetic valuing.

CIS 103 Technical Support and Trouble Shooting

1. **Analyze** symptoms of host configuration errors.
2. **Solve** novel hardware and software problems.
3. **Create** technical documentation for user training.
CABT 131 Microsoft Word

1. **Analyze** communication requirements and **produce** professional-quality business documents, including letters, memoranda, and multi-page reports, using intermediate and advanced features of Microsoft Word.

JOUR 53 – Newspaper Production and Copy Editing

**Construct** visually attractive and readable newspaper pages by:
1. Using knowledge of effective design to fit graphical and text elements on newspaper pages and resolve problems with space constraints
2. Critiquing newspaper pages for design principles and design quality

Theatre Art (a series of courses)

TA 7 – Intro to Acting

**Select, analyze, and perform** selections from dramatic texts **utilizing** the performance skills of memorization, vocal projection, spatial awareness, stage directions and physical expression.

10A – Beginning Acting

**Select, analyze, and perform** selections from dramatic texts **demonstrating increasing control** over the skills of memorization, vocal projection, spatial awareness, stage directions and physical expression.

10B – Intermediate Acting

**Select, analyze, and perform** selections from dramatic texts **demonstrating consistent control** and use of the performance consistent skills of memorization, vocal projection, spatial awareness, stage directions and physical expression.
10C – Advanced Acting

Select, analyze, and perform selections from dramatic texts demonstrating a mastery of the performance skills of memorization, vocal projection, spatial awareness, stage directions and physical expression.

English Composition series

255 – Basic Writing

1. Write paragraphs and short essays demonstrating basic sentence-level competency and culminating in a portfolio.
2. Comment on ideas and writing strategies in reading assignments.

100- Elements of Writing

1. Write essays demonstrating sustained clarity of intention, awareness of audience, and various writing techniques.
2. Articulate responses to readings in various genres.

1A – College Composition

1. Write essays, including research-based writing, demonstrating academic rhetorical strategies and documentation.
2. Analyze and evaluate assigned and researched texts.

1B – Composition and Literature

1. Write literary analysis, interpretation, and research-based essays.
2. Demonstrate close readings of literary texts for analysis and interpretation.
2 – Critical Thinking

1. **Write evidence-based essays demonstrating** logical reasoning and argumentative skills.
2. **Evaluate** logical reasoning and argument in assigned and researched texts.
**English 2: Student Learning Outcomes**  Pluta and Granger-Dickson

<table>
<thead>
<tr>
<th>Student outcomes: At the end of this course you should be able to</th>
<th>Assessment</th>
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</thead>
<tbody>
<tr>
<td>• read a variety of materials critically to</td>
<td>Responsive writing assignments throughout the course</td>
</tr>
<tr>
<td>o identify a thesis</td>
<td></td>
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<tr>
<td>o summarize important points</td>
<td></td>
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<tr>
<td>o analyze main ideas</td>
<td></td>
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<tr>
<td>• solve problems in a variety of settings by</td>
<td>During class activities, particularly discussions and group projects</td>
</tr>
<tr>
<td>o working productively with others</td>
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<tr>
<td>o contributing constructively to class discussion</td>
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<tr>
<td>o thinking for yourself in oral presentations or debates</td>
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<tr>
<td>o displaying openness to other viewpoints</td>
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<tr>
<td>• write papers that</td>
<td>Papers</td>
</tr>
<tr>
<td>o develop a thesis</td>
<td></td>
</tr>
<tr>
<td>o present coherent and logical claims</td>
<td></td>
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<tr>
<td>o are organized with clear links between claims and support</td>
<td></td>
</tr>
<tr>
<td>o are well developed with sufficient and relevant evidence</td>
<td></td>
</tr>
<tr>
<td>o use standard American English correctly</td>
<td></td>
</tr>
<tr>
<td>o make stylistic choices in persona, syntax, and diction</td>
<td></td>
</tr>
<tr>
<td>o gauge the needs of and address a specific audience</td>
<td></td>
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<tr>
<td>• prepare an extended research paper that</td>
<td>Research Paper</td>
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<tr>
<td>o develops a thesis</td>
<td></td>
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<tr>
<td>o presents coherent and logical claims</td>
<td></td>
</tr>
<tr>
<td>o is well organized with clear links between claims and support</td>
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<tr>
<td>o makes stylistic choices in persona, syntax, and diction</td>
<td></td>
</tr>
<tr>
<td>o gauges the needs of and addresses a specific audience</td>
<td></td>
</tr>
<tr>
<td>o shows evidence of ability to evaluate sources for reliability, credibility, and authority</td>
<td></td>
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<tr>
<td>o credits sources appropriately and correctly</td>
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<tr>
<td>• present ideas and research in organized and engaging oral presentations that</td>
<td>Debate, group presentations, and culminating oral presentation of research.</td>
</tr>
<tr>
<td>o express a thesis clearly</td>
<td></td>
</tr>
<tr>
<td>o are well organized and developed</td>
<td></td>
</tr>
<tr>
<td>o conform to time constraints</td>
<td></td>
</tr>
<tr>
<td>o make stylistic choices in persona, syntax, and diction</td>
<td></td>
</tr>
<tr>
<td>o gauge the needs of and addresses a specific audience</td>
<td></td>
</tr>
<tr>
<td>o show evidence of ability to evaluate and incorporate sources for reliability, credibility, and authority</td>
<td></td>
</tr>
<tr>
<td>• display mental habits that show evidence of</td>
<td>Discussion, spontaneous in-class writing, papers, and presentations.</td>
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<tr>
<td>o questioning</td>
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<tr>
<td>o analysis</td>
<td></td>
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<tr>
<td>o synthesis</td>
<td></td>
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<tr>
<td>o beliefs based on evidence</td>
<td></td>
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<tr>
<td>o and ethical behavior in the academic community</td>
<td></td>
</tr>
<tr>
<td>• assess your growth as a thinker and writer this semester using the criteria above:</td>
<td>Final Paper</td>
</tr>
</tbody>
</table>
- read a variety of materials critically
- solve problems in a variety of settings
- write papers
- prepare an extended research paper
- present ideas and research in an organized and engaging oral presentation
- display specific mental habits

Revised January 14, 2004, for spring 2004
Student Learning Outcomes

Instructor Name Gloria Dumler
Course ENGL B1a
Would you like feedback/comments? Yes
May we make these SLOs viewable by others? Yes

Outcomes

The student will:

• Read a variety of materials critically to
  o Apply the principles of analysis to resources ranging from essays and short stories to at least two full-length works;
  o Evaluate the strengths and weaknesses of the works individually and in group discussions;
  o Examine and appraise their support of various argumentative and expository theses;
  o Distinguish between arguments that are logically organized and those which are not;
  o Summarize and respond to these sources in essays and a research paper.

• Write a minimum of 8,000 words by composing essays and a research paper that
  o Demonstrate mastery of expository and argumentative/persuasive forms and modes of writing
  o Reflect a well-organized and logical research and writing plan through
    • Limiting a topic effectively;
    • Finding sources to by using libraries, data bases, and the Internet;
    • Evaluating and establishing the credibility of these sources by using Contemporary Authors, the Book Review Digest, Magazines for Libraries and other appropriate resources;
    • Creating an annotated bibliography;
    • Choosing relevant supporting passages and distinguishing between those that should be quoted directly and those that may be summarized or paraphrased;
  o Synthesizing multiple sources;
  o Summarizing and paraphrasing relevant sources;
  o Composing notes from these sources using quotations, summaries, or paraphrases;
  o Constructing a well-organized working outline;
  o Drafting a work with careful attention to structure and logical organization;
  o Editing the draft by evaluating its clarity, unity, logic, documentation of sources, and adherence to MLA format, including in-text citations and a works cited page;
  o Proofreading the edited draft by assessing how well it has maintained academic style and tone, as well as adherence to the conventions of standard English usage, mechanics, punctuation, and grammar.
## Draft Microbiology Student Learning Outcomes B16

<table>
<thead>
<tr>
<th>Domain</th>
<th>Specific Outcomes</th>
<th>Summative Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge/Cognitive</td>
<td>Following Completion of the Microbiology Course (B16) students will be able to:</td>
<td></td>
</tr>
<tr>
<td>Cell Theory</td>
<td>Use examples of infections, treatment, and epidemiologic control to compare and contrast the characteristics of prions, viruses, bacteria, protozoans, and multicellular parasites.</td>
<td>Final exam essay question</td>
</tr>
<tr>
<td>Microbial Interactions</td>
<td>Explain the dynamics of commensal and pathological relationships that occur between microbes and humans.</td>
<td>Take home case study question for final exam</td>
</tr>
<tr>
<td>Microbial Control</td>
<td>Evaluate methods of microbial control and apply the proper methods necessary when given a scenario.</td>
<td>Multiple choice questions on final exam</td>
</tr>
<tr>
<td>Microbial Metabolism</td>
<td>Briefly describe sample metabolic pathways found in microorganisms and their implications for food production and human disease.</td>
<td>Diagram labeled on final exam</td>
</tr>
<tr>
<td>Microbial Genetics</td>
<td>Summarize basic bacterial genetic principles and analyze implications for mutation, genetic recombination, and bacterial control.</td>
<td>Table completion on final exam</td>
</tr>
<tr>
<td>Immune Response</td>
<td>Articulate and diagram the role of the immune system in maintaining homeostasis, challenging infections, and fighting cancer.</td>
<td>Flow chart created by student on the final exam</td>
</tr>
<tr>
<td>Skills/Psychomotor</td>
<td>Following Completion of the Microbiology Course (B16) students will be able to:</td>
<td></td>
</tr>
<tr>
<td>Scientific Method Application</td>
<td>Apply the scientific method by stating a question; researching the topic; determining appropriate tests; performing tests; collecting, analyzing, and presenting data; and finally proposing new questions about the topic.</td>
<td>Two 50 point labs</td>
</tr>
<tr>
<td>Lab Safety Skills</td>
<td>Correctly perform microbiologic lab skills and display a habit of good lab practices which extends to relevant situations in the student’s studies.</td>
<td>Components of lab assignments above are used to assess</td>
</tr>
<tr>
<td>Domain</td>
<td>Specific Outcomes</td>
<td>Summative Assessment Method</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
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<tr>
<td>homes.</td>
<td></td>
<td>these skills</td>
</tr>
<tr>
<td>Attitudes and behavior/Affective</td>
<td>Following Completion of the Microbiology Course (B16) students will be able to: Retrieve, evaluate, and use microbiologic information regarding contemporary issues in the world and relevant to their everyday lives.</td>
<td>Take home essay question on final exam and live patient interview</td>
</tr>
<tr>
<td>Appraisal of microbiologic information</td>
<td>Retrieve, evaluate, and use microbiologic information regarding contemporary issues in the world and relevant to their everyday lives.</td>
<td>Take home essay question on final exam and live patient interview</td>
</tr>
</tbody>
</table>
SLOs for Math A, Bakersfield College

< http://www.bc.cc.ca.us/accreditation/SLO/detail.asp?id=84>

Student Learning Outcomes

Instructor Name Mary Jo Anhalt
Course Math BA
Would you like feedback/comments? Yes
May we make these SLOs viewable by others? Yes

Outcomes
Math A Course Outcomes
February 2004

1. Simplify algebraic expressions using the correct order of operations.

2. Solve formulas and linear equations for a specified variable.

3. Solve application problems by defining a variable, setting up and solving an equation and interpreting the result.

4. Perform algebraic operations on polynomials: factor, add, subtract, multiply, and divide by a monomial.

5. Given a linear equation, graph the line, identify and interpret x and y intercepts and slope.

6. Write and graph linear equations given a) two points and b) one point and a slope.

7. Solve a system of two linear equations and interpret the solution graphically and algebraically.

8. Solve quadratic equations by factoring and the quadratic formula, including simplifying whole number square roots.

9. Simplify rational expressions with quadratic numerators and denominators.
Student Learning Outcomes

Instructor Name  Robert Dietz
Course  CHEM 11

Would you like feedback/comments?  Yes
May we make these SLOs viewable by others?  Yes

Outcomes
CHEM 11 STUDENT LEARNING OUTCOMES

1. Students will demonstrate familiarity with the major concepts in chemistry, and apply them to demonstrate the "workings" of the human body.

2. Students will demonstrate the factors that affect the behavior of atoms and how atoms combine into molecules, and demonstrate the law of Simple Proportions and the law of Multiple Proportions.

3. Students will relate the chemical control mechanisms for maintaining constant pH in the human body, and the effects of various diseases and behavior on changes in pH.

4. Students will classify the (organic) compounds and reaction types of the Kreb’s Citric Acid Cycle and relate them to the functioning of the human body.

5. Students will demonstrate the ability to make accurate observations of physical and chemical changes during experimentation.
SLOs for Speech B5, Bakersfield College

<http://www.bc.cc.ca.us/accreditation/SLO/detail.asp?id=47>

Student Learning Outcomes

Instructor Name Michael Korcok
Course SPCH B5
Would you like feedback/comments? Yes
May we make these SLOs viewable by others? Yes

Outcomes
Michael Korcok
Speech B5
Communication Department

Student Learning Outcomes for Rhetoric and Argumentation

1. Identify substantial social and political issues.

2. Construct appropriate factual, value, and policy claims associated with those issues.

3. Research and evaluate evidence from a variety of sources bearing on relevant claims.

4. Discriminate between valid and fallacious argument types.

5. Build sound and effective arguments.

6. Obtain facility with a variety of debate and discussion formats.

7. Advocate positions effectively in both oral and written forms.
SLOs for Spanish B4, Bakersfield College

<http://www.bc.cc.ca.us/accreditation/SLO/detail.asp?id=51>

**Student Learning Outcomes**

**Instructor Name** Luis Guajardo  
**Course** Spanish B4  
**Would you like feedback/comments?** Yes  
**May we make these SLOs viewable by others?** Yes

**Outcomes**

Upon completion of Spanish 4 the student will be able to:

1. Communicate orally with fluency and comprehension in Spanish in a variety of settings and topics including: expressing personal feelings, describing people, situations, relationships and places. Also demonstrate mastery while using past, present and future tense.

2. Read critically with ability to summarize and analyze main ideas and writer's perspective in a variety of reading materials in Spanish including essays, short stories, poems, magazines and other informative reading.

3. Demonstrate mastery of writing in Spanish through various types of compositions and short essays such as descriptive, persuasive, informative and creative assignments.

4. Identify and apply basic principles of literary analysis related to narrative genre such as narrator, characters, and plot; dramatic genre such as dramatic conflict and resolution, representation or theater; and poetry such as speaker, theme, simile, metaphor, personification, versification and rhyme.

5. Identify and compare a selected number of authors representing various genres, periods and literary tendencies from Spain and Latin America.

6. Identify and discuss topics relevant to the Hispanic world such as Latin American politics and culture, Hispanics in the United States, bilingualism, immigration and others.
SKYLINE COLLEGE LIBRARY

STUDENT LEARNING OUTCOMES

As a result of participating in or using Skyline Library’s resources, programs, and/or services, by the end of their college experience students will be able to:

1) Effectively locate and access information in numerous formats using a variety of appropriate search tools.

2) Evaluate the relevance, quality and credibility of a wide variety of information sources using critical thinking and problem solving skills.

3) Develop attitudes central to lifelong learning: openness, flexibility, intellectual curiosity, and a broad perspective that values diversity of thought.

Dennis Wolbers, October 2006
Student Learning Outcomes for Philosophy Courses

PHIL 103: Critical Thinking

- SLO 1. When presented with an argument, the student is able to assess the soundness of the argument by assessing deductive validity using appropriate deductive techniques (and assessing the truth or epistemic value of the premises using reliable sources of information).

- SLO 2. When presented with an argument, the student is able to assess the cogency of the argument by assessing inductive strength using appropriate inductive techniques (and assessing the truth or epistemic value of the premises using reliable sources of information).

- SLO 3. When presented with a theoretical hypothesis or a pseudo-scientific claim, the student is able to evaluate it using appropriate explanatory criteria.

- SLO 4. At the end of the course, the student is able to construct a novel, interesting, and logically correct argument that avoids fallacies. The student is also able to represent the logical structure of the argument (in standard logical form), as well as express and defend the argument as a short essay.

PHIL 200: Introduction to Logic

- SLO 1. Ability to represent the form of an argument by translating English statements into a formal language using truth-functional operators and (multiple) quantifiers.

- SLO 2. Ability to use formal techniques to determine logical properties of individual statements and logical relationships that hold between pairs of statements—such as contradiction, contingency, consistency, equivalence, etc.

- SLO 3. Ability to construct proofs for valid arguments and theorems in truth-functional and predicate logic (or show that an argument is invalid) using appropriate techniques—such as truth tables, truth trees, Venn diagrams, natural deduction, etc.
PHIL 100: Introduction to Philosophy

- SLO 1. Ability to formulate some of the core questions of philosophy and understand various philosophical responses to them in their historical context.

- SLO 2. Ability to analyze and evaluate philosophical claims, arguments, and theories using rigorous philosophical methods (such as logical analysis and the identification of fallacies).

- SLO 3. Students will embody the qualities of an open-minded but critical thinker in the examination or formation of their philosophy.

PHIL 160 and 175: History of Philosophy (Ancient and Modern)

- SLO 1. Ability to compare, contrast, analyze, and evaluate the views of the most influential Western philosophers and philosophical movements from a particular historical period—as found in primary or secondary sources—using rigorous philosophical methods.

- SLO 2. Students will embody the qualities of an open-minded but critical thinker in the examination or formation of their philosophy.
PHIL 240: Ethics

- SLO 1. Ability to explicate, analyze, compare, and evaluate a variety of theories in normative ethics or meta-ethics using rigorous philosophical methods.
- SLO 2. Ability to apply moral theories and concepts to contemporary problems—such as war, capital punishment, euthanasia, poverty, etc.
- SLO 3. Students will embody the qualities of an open-minded but critical thinker in the examination or formation of their moral philosophy.

PHIL 300: World Religions

- SLO 1. Ability to interpret ritual practices, art, and writing of a religious tradition—using the methods of scholarship and historical criticism—in order to ascertain their function or meaning.
- SLO 2. Ability to compare and contrast the beliefs and practices of various religious traditions—including variations and disputes within the tradition—in their historical and contemporary contexts.
- SLO 3. Ability to critique the philosophical worldview (metaphysical and moral) of a religious tradition—using rigorous philosophical methods and drawing on the perspectives of alternative philosophies.

PHIL 320: Asian Philosophy

- SLO 1. Ability to compare, contrast, analyze, and evaluate the views of influential Asian philosophers and philosophical movements—as found in primary or secondary sources—using the
techniques of critical thinking.

- SLO 2. Students will embody the qualities of an open-minded but critical thinker in the examination or formation of their world view.
## Cognitive Domain

### Learning Outcomes Related To Knowledge

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

### Basic

- **Knowledge**
  - Write

### More Sophisticated

- **Higher Level Thinking**
## Psychomotor Domain

### Learning Outcomes Related To Skills

<table>
<thead>
<tr>
<th>Observe</th>
<th>Model</th>
<th>Recognize Standards</th>
<th>Correct</th>
<th>Apply</th>
<th>Coach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students translate sensory input into physical tasks or activities.</td>
<td>Students are able to replicate a fundamental skill or task.</td>
<td>Students recognize standards or criteria important to perform a skill or task correctly.</td>
<td>Students use standards to evaluate their own performances and make corrections.</td>
<td>Students apply this skill to real life situations.</td>
<td>Students are able to instruct or train others to perform this skill in other situations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hear</th>
<th>Identify</th>
<th>Observe</th>
<th>See</th>
<th>Smell</th>
<th>Taste</th>
<th>Touch</th>
<th>Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempt</td>
<td>Copy</td>
<td>Follow</td>
<td>Imitate</td>
<td>Mimic</td>
<td>Model</td>
<td>Reenact</td>
<td>Repeat</td>
</tr>
<tr>
<td>Reproduce</td>
<td>Show</td>
<td>Try</td>
<td>Check</td>
<td>Detect</td>
<td>Discriminate</td>
<td>Differentiate</td>
<td>Distinguish</td>
</tr>
<tr>
<td>Notice</td>
<td>Perceive</td>
<td>Recognize</td>
<td>Select</td>
<td>Adapt</td>
<td>Adjust</td>
<td>Alter</td>
<td>Change</td>
</tr>
<tr>
<td>Correct</td>
<td>Customize</td>
<td>Develop</td>
<td>Improve</td>
<td>Manipulate</td>
<td>Modify</td>
<td>Practice</td>
<td>Revise</td>
</tr>
<tr>
<td>Build</td>
<td>Compose</td>
<td>Construct</td>
<td>Create</td>
<td>Design</td>
<td>Originate</td>
<td>Produce</td>
<td></td>
</tr>
</tbody>
</table>

*Usually no outcomes or objectives written at this level.*

**Basic Knowledge**

<table>
<thead>
<tr>
<th>Basic Skills</th>
<th>More Sophisticated Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Knowledge</td>
<td>Higher Level Abilities</td>
</tr>
</tbody>
</table>
# Affective Domain

Learning Outcomes Related To Attitudes, Behaviors, and Values

<table>
<thead>
<tr>
<th>Receiving</th>
<th>Responding</th>
<th>Valuing</th>
<th>Organizing</th>
<th>Characterizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students become aware of an attitude, behavior, or value.</td>
<td>Students exhibit a reaction or change as a result of exposure to an attitude, behavior, or value.</td>
<td>Students recognize value and display this through involvement or commitment.</td>
<td>Students determine a new value or behavior as important or a priority.</td>
<td>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.</td>
</tr>
<tr>
<td>Accept</td>
<td>Behave</td>
<td>Accept</td>
<td>Adapt</td>
<td>Authenticate</td>
</tr>
<tr>
<td>Attend</td>
<td>Comply</td>
<td>Adapt</td>
<td>Adjust</td>
<td>Characterize</td>
</tr>
<tr>
<td>Describe</td>
<td>Cooperate</td>
<td>Balance</td>
<td>Alter</td>
<td>Defend</td>
</tr>
<tr>
<td>Explain</td>
<td>Discuss</td>
<td>Choose</td>
<td>Change</td>
<td>Display</td>
</tr>
<tr>
<td>Locate</td>
<td>Examine</td>
<td>Differentiate</td>
<td>Customize</td>
<td>Embody</td>
</tr>
<tr>
<td>Observe</td>
<td>Follow</td>
<td>Defend</td>
<td>Develop</td>
<td>Habitate</td>
</tr>
<tr>
<td>Realize</td>
<td>Model</td>
<td>Influence</td>
<td>Improve</td>
<td>Internalize</td>
</tr>
<tr>
<td>Receive</td>
<td>Present</td>
<td>Prefer</td>
<td>Manipulate</td>
<td>Produce</td>
</tr>
<tr>
<td>Recognize</td>
<td>Respond</td>
<td>Recognize</td>
<td>Modify</td>
<td>Represent</td>
</tr>
<tr>
<td>Show</td>
<td>Seek</td>
<td>Practice</td>
<td>Validate</td>
<td></td>
</tr>
<tr>
<td>Studies</td>
<td>Value</td>
<td>Revise</td>
<td>Verify</td>
<td></td>
</tr>
</tbody>
</table>

Developed by Janet Fulks and Kate Pluta
Bakersfield College
Definitions from Janet Fulks’ *Assessing Student Learning in Community Colleges*,
<http://online.bakersfieldcollege.edu/courseassessment/Definitions.htm>

**Definition of Terms**

**Abilities.** This level of accomplishment relates to the integration of knowledge, skills, and attitudes in complex ways that require multiple elements of learning.

**Active learning.** Active learning is an approach where students are participating in learning beyond passively absorbing knowledge such as in a didactic session. Actively learning students are involved in solving problems, applying knowledge, working with other students, and engaging the material to construct their own understanding and use of the information. Examples of active learning methods include those methods where deeper thinking and analysis are the responsibility of the student and the faculty member acts as a coach or facilitator to achieve specified outcomes. Examples of active learning include: inquiry-based learning, case-study methods, project development, modeling, collaborative learning, problem-based learning, buzz groups or brainstorming, and simulations.

**Assessment.** Assessment refers to a process where methods are used by a faculty member, department, program or institution to generate and collect data for evaluation of processes, courses, and programs with the ultimate purpose of evaluating overall educational quality and improving student learning. This term refers to any method used to gather evidence and evaluate quality and may include both quantitative and qualitative data.

**Attitudinal outcomes.** Outcomes related to changes in beliefs or development of certain values.

**Authentic assessment.** Assessment that evaluates the student’s ability to use their knowledge and to perform tasks that are approximate those found in the work place or other venues outside of the classroom setting.

**Classroom assessment techniques.** Classroom assessment techniques (CATs) are “simple tools for collecting data on student learning in order to improve it” (Angelo & Cross, 1993, p. 26). CATs are short, flexible, classroom techniques that provide rapid, informative feedback to improve classroom dynamics by monitoring learning, from the student’s perspective, throughout the semester. Data from CATs are evaluated and used to facilitate continuous modifications and improvement in the classroom.

**Classroom-based assessment.** Classroom-based assessment is the formative and summative evaluation of student learning within a single course. This assessment involves evaluating the
curriculum as designed, taught, and learned. It involves the collection of data aimed at measuring successful learning in the individual course and improving instruction with a goal to improving learning.

**Collegiality.** Mutually respectful discussion that leads to participative decision making.

**Competencies.** Competencies refer to the specific level of performance that students are expected to master.

**Criterion-based assessments.** Assessment evaluated or scored using a set of criteria to appraise or evaluate work. Criterion-referenced evaluation is based on proficiency not subjective measures such as improvement.

**Culture of evidence.** The term culture of evidence refers to an institutional culture that supports and integrates research, data analysis, evaluation, and planned change as a result of assessment (Pacheco, 1999). This culture is marked by the generation and valuing of quantitative and qualitative data providing accountability for institutionally defined outcomes (Wright, 1999).

**Direct data.** Data that measures the exact value. For instance, a math test directly measures a student's learning in math. (Contrast with indirect data below.)

**Embedded assessment.** Embedded assessment occurs within the regular class or curricular activity. Class assignments linked to student learning outcomes through primary trait analysis, serve as grading and assessment instruments. Individual questions on exams can be embedded in numerous classes to provide departmental, program, or institutional assessment information. An additional benefit to embedded assessment is immediate feedback on the pedagogy and student needs.

**Evidence of program and institutional performance.** Quantitative or qualitative, direct or indirect data that provides information concerning the extent to which an institution meets the goals it has established and publicized to its stakeholders.

**Formative assessment.** Formative assessment generates useful feedback for development and improvement. The purpose is to provide an opportunity to perform and receive guidance (such as in class assignments, quizzes, discussion, lab activities, etc.) that will improve or shape a final performance. This stands in contrast to summative assessment where the final result is a verdict and the participant may never receive feedback for improvement such as on a standardized test or licensing exam or a final exam.

**Homegrown or Local assessment.** This type of assessment is developed and validated for a specific purpose, course, or function and is usually criterion-referenced to promote validity.
**Indirect data.** Data that measures a variable related to the intended value. For instance a person's math skills may be indirectly measured through an employers questionnaire asking about the computational skills of graduating students.

**Information competency.** The ability to access, analyze, and determine the reliability of information on a given topic.

**Knowledge.** Particular areas of disciplinary or professional content that students can recall, relate, and appropriately deploy.

**Learning.** Particular levels of knowledge, skills, and abilities that a student has attained at the end of engagement in a particular set of collegiate experiences.

**Likert scale.** The Likert scale assigns a numerical value to responses in order to quantify subjective data. The responses are usually along a continuum such as - responses of strongly disagree, disagree, neutral, agree, or strongly agree- and are assigned values of such as 1-5. This allows easy manipulation of data but attention must be given to the validity and reliability of the tool.

**Metacognition.** Metacognition is the act of thinking about one's own thinking and regulating one's own learning. It involves critical analysis of how decisions are made and vital material is consciously learned and acted upon.

**Norm-referenced assessment.** In norm-referenced assessment an individual's performance is compared to another individual. Individuals are commonly ranked to determine a median or average. This technique addresses overall mastery, but provides little detail about specific skills. This can also be used to track an individuals own improvement over time.

**Outcomes** - Learning outcomes are defined in higher education assessment practice as something that happens to an individual student as a result of attendance at a higher education institution.

**Pedagogy** - Pedagogy is the art and science of how something is taught and how students learn it. Pedagogy includes how the teaching occurs, the approach to teaching and learning, the way the content is delivered and what the students learn as a result of the process. In some cases pedagogy is applied to children and andragogy to adults; but pedagogy is commonly used in reference to any aspect of teaching and learning in any classroom.

**Primary Trait Analysis** (PTA) is the process of identifying major traits or characteristics that are expected in student work. After the primary traits are identified, specific criteria with performance standards, are defined for each trait.

**Qualitative data.** Data collected as descriptive information, such as a narrative or portfolio. These types of data, often collected in open-ended questions, feedback surveys, or summary
reports, is more difficult to compare, reproduce, and generalize. It is bulky to store and to report, however, it is often the most valuable and insightful data generated, often providing potential solutions or modifications in the form of feedback.

**Quantitative data.** Data collected as numerical or statistical values. These data use actual numbers (scores, rates, etc) to express quantities of a variable. Qualitative data, such as opinions, can be displayed as numerical data by using Likert scaled responses which assigns a numerical value to each response (e.g. 5 = strongly agree to 1 = strongly disagree). This data is easy to store and manage; it can be generalized and reproduced, but has limited value due to the rigidity of the responses and must be carefully constructed to be valid.

**Reliability.** Reliability refers to the reproducibility of results over time or a measure of the consistency when an assessment tool is used multiple times. In other words, if the same person took the test five times, the data should be consistent. This refers not only to reproducible results from the same participant, but also to repeated scoring by the same or multiple evaluators.

**Rubric.** A rubric is a set of criteria used to determine scoring for an assignment, performance, or product. Rubrics may be holistic providing general guidance or analytical assigning specific scoring point values.

**Skills.** the learned capacity to do something.

**Standardized assessment.** Assessments created, tested, and usually sold by an educational testing company e.g. GRE’s, SAT, ACT for broad public usage and data comparison, usually scored normatively.

**Student Learning Outcomes (SLO).** Student learning outcomes are the specific measurable goals and results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process.

**Summative assessment.** A summative assessment is a final determination of knowledge, skills, and abilities. This could be exemplified by exit or licensing exams, senior recitals, or any final
evaluation which is not created to provide feedback for improvement, but is used for final judgments. Some midterm exams may fit in this category if it is the last time the student has an opportunity to be evaluated on specific material.

**Validity.** An indication that an assessment method accurately measures what it is designed to measure with limited effect from extraneous data or variables. To some extent this must also relate to the integrity of inferences made from the data.
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