

Student Learning Outcomes and Standards/Assessments

Learning outcomes! What's the big deal? What are they and why are they necessary? Do we really need student learning outcomes?

These are all questions that have been asked of the Curriculum Office and you need the answers before you will be able to successfully write outcomes for your proposal.

In general, student learning outcomes (or objectives):

- Are broad general statements that describe what learners should be able to know, do, or value at the end of the course;
- Correspond directly to CAC's philosophy, vision and mission;
- Relate to "ends" not "means;"
- Provide clear direction to drive curriculum development, student learning expectations, and assessment;
- Use clear, strong action verbs that define what students will need to be able to know, do, or value (this is when Bloom's Taxonomy becomes very important);
- Are not a list of activities, rather they are clearly articulated action statements defining specific student learning.



It's difficult writing outcomes unless you have served on the historical Learning Outcomes Review Committee (LORC) or have served as a curriculum mentor. It's difficult to know what words are used to begin the outcome statement. You can use

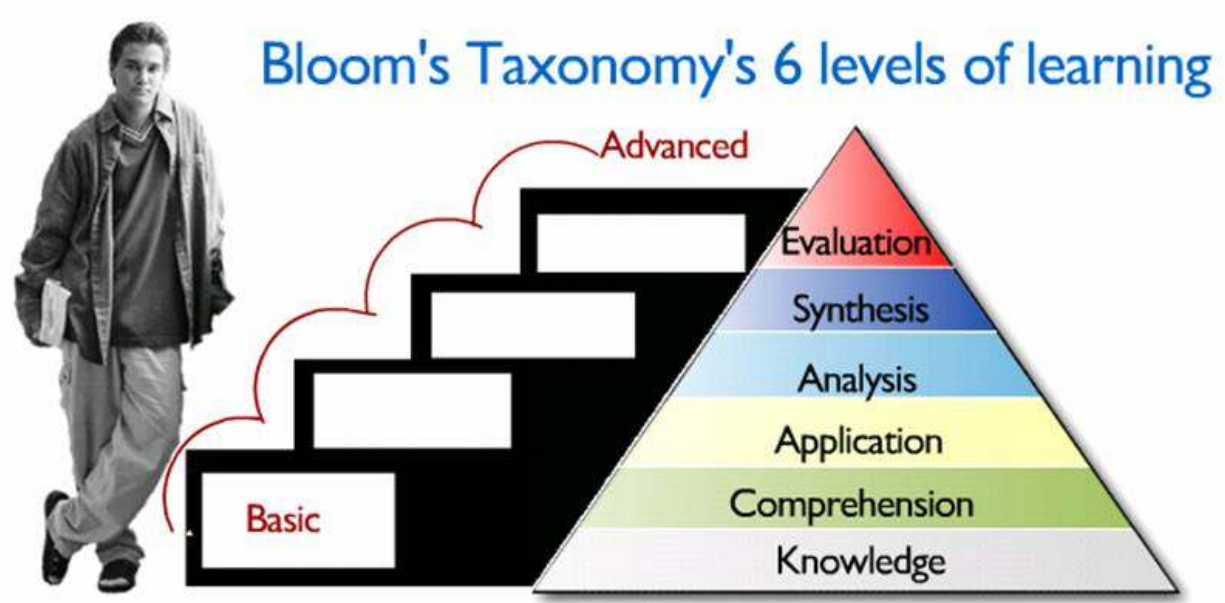
Bloom's Taxonomy to help, but the task of writing outcomes can be overwhelming and frustrating! There is help...

CyberCampus, offers an exceptional tool to help you write outcomes for your course. In your internet browser type in <http://www.radiojames.com/ObjectivesBuilder/> or go to the CAC website, point to Academics, Curriculum Office, point and click on Course Development and click on "Write better outcomes?" Please don't let the term "objectives" confuse you - we refer to them as outcomes. They mean the same thing in this context.

First time users should click on the tutorial just to have a clearer understanding of how to write concise, powerful outcomes. The tutorial will only take a few minutes and gives an explanation of outcomes (objectives).

After viewing the tutorial, click on "Start" in the #2 box.



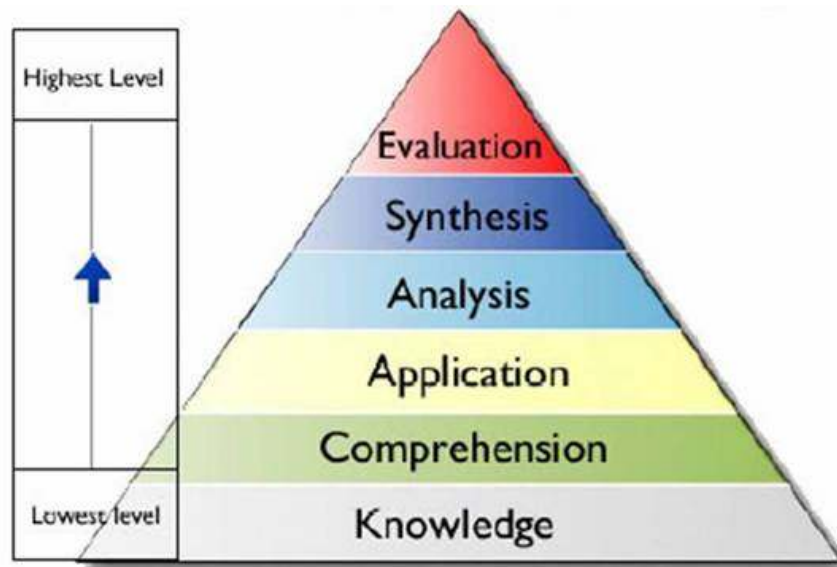


Graphics provided by CyberCampus

Not only will CyberCampus (Radio James) help you write better outcomes, it will help you judge whether the course should be a 100 or 200 level course. If the outcomes were written using the top three tiers of Bloom's Taxonomy, the course would be numbered 200. If the bottom three levels are used, the course should be numbered 100. Please see graphic representation on the next page.

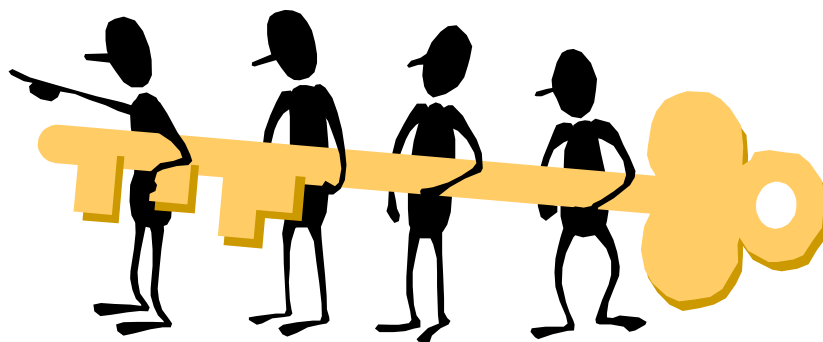


Bloom's Taxonomy (Hierarchy of Learning)

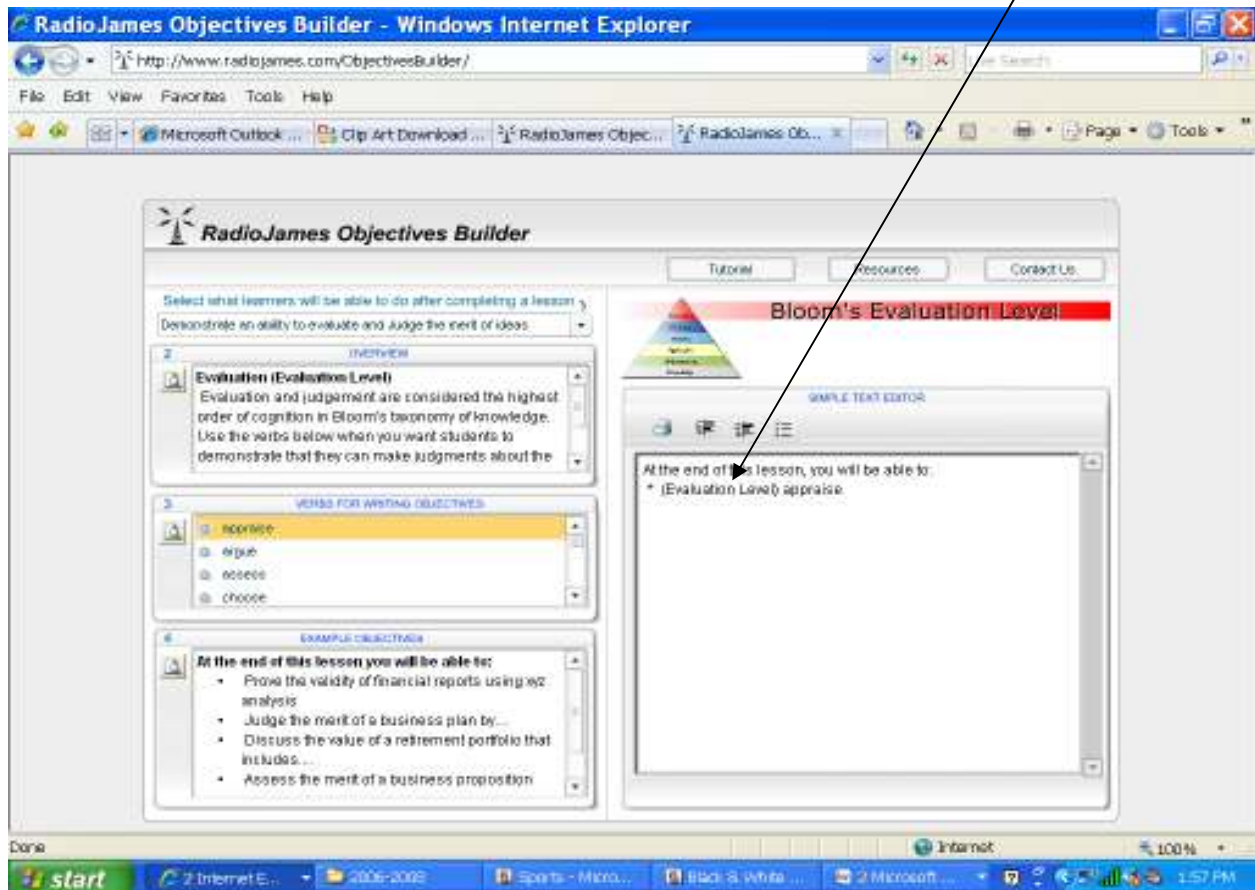


Graphics provided by CyberCampus

In this graphic you can see Bloom's Taxonomy is built from the bottom up. Knowledge, Comprehension, and Application requires lower level cognitive abilities and would be suitable for 100 or lower level courses. Analysis, Synthesis, and Evaluation are higher level functions and would be most appropriate for 200 level courses.



As you work in the Objectives Builder, you will notice that it adds the “level” to the front of the outcome (objective).



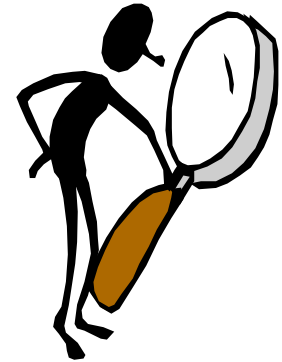
When you cut and paste the outcomes (objectives) into ACRES, always leave these levels intact. The Curriculum Office is now requiring these levels on all outcomes (objectives) to ensure smooth sequencing of learning and academic challenge throughout the curriculum. This not only helps you write stronger outcomes, it also sends a clear message to the reviewers as to your ultimate goal.

NEW REQUIREMENT!!!!

Always include the level of Bloom's Taxonomy for every outcome!

Who is going to be reviewing my proposal?

Your proposal will be reviewed by the people listed on the ACRES routing chain. You will find the routing chains in the chapter discussing the form you are submitting. However, we can tell you that all new and modified degrees, certificates, and courses will be reviewed by a curriculum mentor.



Who is this curriculum mentor and what do they do?

That's an excellent question. The curriculum mentor should become your best curriculum friend when you are writing your proposal. They will help you with writing outcomes and standards, credit breakdown, description, and everything else on the form. For more information on curriculum mentors, see page 177.

Are there other resources to help me write outcomes?

Absolutely! The Curriculum Office is always here to assist you. Please call on us anytime. There are also a number of books and articles in the office library that will guide you to writing awesome outcomes!

We have also included more verbs from Bloom's Taxonomy on the next page. These may or may not be included in the list of Radio James Objective Builder. Keep in mind, even though the word "use" is included in Bloom's Taxonomy, please only use it when the student must use an instrument or tool to complete an assignment. For example, an outcome might state: "Use a caliper to set the gap on a spark plug." This is perfectly acceptable. However, "use the knowledge received in this course to write a term paper" is not acceptable.

The same is true for the word "demonstrate." Please refrain from using "demonstrate the knowledge of..." Correct usage would be: "demonstrate the steps to disassemble the"

LEARNING DOMAINS OF BLOOM'S TAXONOMY

COGNITIVE	
CATEGORY	KEY WORDS
Knowledge/Recall	arrange, collect, count, define, describe, distinguish, draw, duplicate, find, identify, indicate, know, label, list, locate, match, memorize, name, observe, order, outline, point, provide, quote, read, recall, recite, recognize, record, relate, repeat, reproduce, retrieve, review, select, show, state, tabulate, tell, trace, underline, write
Comprehension	associate, change, classify, compare, comprehend, compute, conclude, contrast, convert, defend, define, describe, dialogue, differentiate, discover, discuss, distinguish, edit, estimate, explain, express, extend, extrapolate, generalize, give examples of, identify, illustrate, indicate, infer, interpolate, interpret, locate, match, paraphrase, predict, rearrange, relate, rephrase, report, restate, review, rewrite, show, summarize, tell, transform, translate
Application	apply, calculate, change, choose, classify, code, complete, compute, conduct, construct, demonstrate, discover, dramatize, draw, employ, examine, experiment, find solutions, generalize, illustrate, implement, increase, install, interpret, manipulate, model, modify, operate, order, order a set of events, organize, paint, plot results, practice, predict, prepare, produce, purchase, reconstruct, relate, relate principles, repair, show, sketch, solve, summarize, transfer, use, utilize
Analysis	analyze, appraise, arrange, break down, calculate, categorize, classify, combine, compare, connect, construct, contrast, criticize, deconstruct, deduce, detect logical, diagram, differentiate, discriminate, distinguish, divide, examine, experiment, explain, extrapolate from, formulate, group, hypothesize, identify, illustrate, infer, investigate, order, organize, outline, point out, put together, question, recognize assumptions, reduce, relate, select, separate, solve, state differences, state difficulties, state similarities, state the difference between, state what further information, subdivide, summarize, survey, take apart, take away, transform
Synthesis	arrange, assemble, build, categorize, collect, combine, compile, compose, construct, create, derive, design, develop, devise, explain, formulate, generalize, generate, hypothesize, imagine, integrate, invent, make, manage, modify, organize, originate, plan, prepare, prescribe, produce, put together, rearrange, reconstruct, relate, reorganize, revise, rewrite, role play, set up, state conditions, substitute, summarize, synthesize, tell, translate, write

Evaluation	apply standards, appraise, argue, assess, choose, compare, conclude, consider, contrast, convince, criticize, critique, debate, decide, defend, describe, determine, discriminate, estimate, evaluate, explain, grade, interpret, judge, justify, measure, predict, prioritize, prove, rank, rate, recommend, regulate, relate, select, summarize, support, test, validate, value, weigh
Mathematical Behavior	add, bisect, calculate, check, circumscribe, conduct, connect, convert, decrease, demonstrate, dissect, feed, grow, increase, insert, keep, lengthen, limit, manipulate, operate, plant, prepare, remove, replace, report, reset, set, specify, straighten, time, transfer, weigh

Standards/Assessments! What are they and again, why do we need them?

Standards are what the student will actually be doing to prove they have mastered the outcomes. Standards should include a qualifier or a quantifier. Another term for standard is assessment. How will the instructor determine if the student achieved the student learning outcomes? What achievements represent satisfactory completion? Are these observable, measurable, and tied to the student learning outcomes or general education outcomes? For example, if your outcome states that



the student will “Define discipline specific terms,” then your standard could be: “When given a list of 25 terms, the student will correctly define 20.” As you can see this standard ties to the assessment and is very clear about how the students prove they have mastered the student learning outcome.

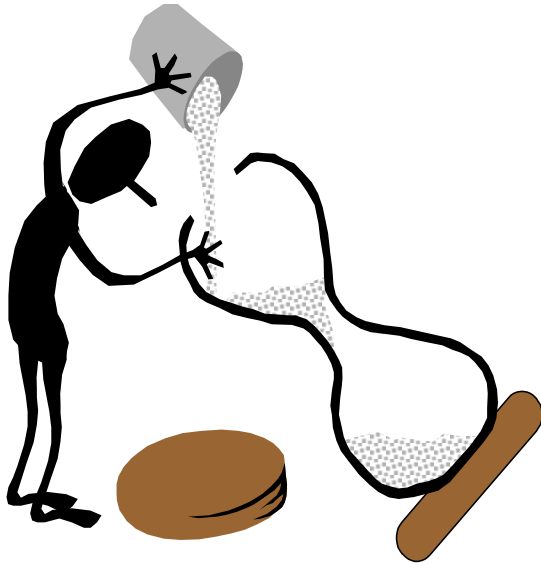
Use the following statements to guide you as you write standards/assessments for your course. Customize the statement to closely match the specific, desirable level of performance students should achieve to demonstrate competency in your course. Please remember, one standard may accommodate several learning outcomes.

1. Accurately define/list/describe/identify the ___ (#) _____ pertaining to _____.
2. Create a _____ appropriate for _____.
3. Write a ___ (#) word paper, including properly documented evidence to support _____, _____, and _____.
4. Per 2008 _____ accreditation/licensure guidelines, accurately chart _____.
5. Present ___ (#) out of ___ (#) key concepts related to _____ with 100% accuracy.

6. Design an age-appropriate learning environment for _____, including _____, _____, and _____.
7. In a project team, complete the ___ (#) written case study analyses based on class designated/ related resources, theories, laws, and expertise gleaned through interviews with content experts.
8. Demonstrate competency by accurately drawing blood from 19 out of 20 patients.
9. Write a ___ (#) page term paper, focusing on _____, _____, and _____ and using correct spelling, grammar, and APA/MLA style list of references cited.
10. Accurately determine the status of _____ 8 out of 10 times by using _____, _____, _____, and _____.
11. Conduct a needs assessment, design a survey instrument, pilot the instrument, further refine it, sample a population, and write a report based on the raw data in addition to drawing inferences and insights appropriate to the sample and your study.
12. Diagnose and repair a _____ using standard manuals, experience, available course experts, and common tools.
13. Balance _____ based on a six-month cycle of common entries, as specified by your instructor.
14. Based on specific texts, compare and contrast the theme of _____ in a 500 word term paper.
15. Create and deliver a ___ (#) minute _____ presentation using given criteria.
16. Accurately write step-by-step instructions for executing a _____ on _____.
17. Write a letter of recommendation for a classmate using correct spelling, grammar, formatting, and _____.
18. As a team, _____ (verb) _____ (suggested verbs: build, calculate, chart, cook, conduct, configure, create, deliver, design, evaluate, execute, implement, plan, prepare, prove, publish, write) a _____ using _____, _____, and _____ within project specific constraints.
19. Determine effective _____ by _____.
20. Correctly determine _____ based on _____.
21. Analyze _____ and correctly prepare _____.
22. Accurately maintain _____ and prepare _____ in accordance with _____.
23. Accurately conduct an experiment using _____ to determine _____.
24. Determine relevant _____ (suggestions: philosophies, strategies, solutions, theories) to _____.
25. Accurately compute _____ with _____% consistency throughout the course.
26. Conduct a _____ and present results using specified criteria, i.e. _____.
27. Accurately perform a given sequence _____ related to _____.
28. Write a paper or discuss _____ from _____ (#) perspectives/viewpoints.
29. Produce a reflective journal with ___ (#) entries covering _____, _____, and _____.
30. Complete a sample licensure exam at _____% proficiency.
31. Create a professional portfolio to _____.
32. Complete a/an _____ (suggestions: interactive project, presentation, experimental design, work of art) to be rated per assigned rubric at the level of _____ proficiency.
33. Appropriately critique other students' _____ using a given rubric.

34. Use _____ to _____.

(Approved by CAC CLASS Office Standards Task Force on 11/04/08, membership includes: Marjorie Schiller, Tashia Irvine, Linda Day, and Mary Menzel.)



By following the suggestions of your curriculum mentor and using the Objectives Builder, you will be saving precious time and energy writing your outcomes and standards!

Your curriculum mentor will help you get your proposal in the best possible shape for Curriculum Committee review!

While the Curriculum Committee may require a few tweaks, your proposal should be in excellent shape. Their review and comments should be minimal and your proposal will be on its way to being totally approved and activated!

If you are confused or just need questions answered during this process, please call or email us...

Curriculum and Student Learning Assessment

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We will be happy to assist you!