FAQs for Writing Learning Outcomes

What Specifically is a Learning Outcome?
- A statement that describes what a student will **know** (<u>knowledge</u>), **be able to do** (<u>skill</u>), and/or **value/appreciate** (<u>disposition</u>) as a result of a learning experience.
- Learning outcomes can be written for a **major/program** (departmental or GEP learning outcomes), **a course** (learning outcomes included on a syllabus), and/or an **individual lesson**
- Phrased in terms of **OUTPUTS (student learning)** not inputs (what the instructor does in class or assigns).
- Should be written in the following form including **all three components**:

> 1) **Students can/will be able to**… 2) **action verb** (see back for a comprehensive list of action verbs from Bloom's Taxonomy)… 3) **specific action/skill they will be able to do** (including discipline-specific knowledge, skill, or ability).

How Can Learning Outcomes Enhance Teaching and Learning?
- With each lesson, course, and program, instructors are urged to ask,
  - **What <u>knowledge</u>, <u>skills</u>, and/or <u>dispositions</u> do I want students to get from this?**
  - **What <u>evidence</u> can I gather to show that students are getting it?**
- Because learning outcomes must be observable/measurable, evidence can be produced to demonstrate what students are actually learning
- Assessment evidence provides valuable data for improving instruction and increasing student learning in courses and programs.

What Are Some Examples of Well-Written Learning Outcomes?
- Students will be able to read, interpret, and analyze common reference maps
- Students will be able to apply critical thinking skills to offer a solution to a real-world problem (GEP)
- Students can create narratives about the past based on primary source documents
- Students can explain the relationship between genetics and disease risk
- Students can choreograph a dance reflecting a specific dance style

What Are Some Common Mistakes Made When Writing Learning Outcomes?
- **Using vague verbs that are difficult to measure like "learn," "understand," or "know."** How will you know if students understand, know, or have learned? Use specific action verbs—you will know students understand if they can explain, describe, summarize, analyze, compare, evaluate, etc.
- **Writing learning outcomes that describe inputs like assignments or lecture content rather than the learning that will occur because of the assignment or lecture.** "Students will read essays by significant philosophers of the 19th Century" describes reading assignments students will complete (input), but does not describe what students will know, be able to do, or value, as a result of completing the readings (outcome).
- **Including too many learning outcomes.** The best target for the number of learning outcomes for a course or program is 2 – 4 (1 is acceptable if it is very rich, 5 is acceptable if you can make a really strong argument for adding a fifth). Learning outcomes are meant to be broader learning goals targeting important knowledge, skills and dispositions, not a comprehensive listing of discreet skills or bits of knowledge

BLOOM'S TAXONOMY (Revised 2001)
Learning Outcome Verbs at Each Bloom Taxonomy Level

Cognitive Level	Illustrative Verbs	Definitions
Knowledge	arrange, define, describe, duplicate, identify, label, list, match, memorize, name, order, outline, recognize, relate, recall, repeat, reproduce, select, state	remembering previously learned information
Comprehension	classify, convert, defend, discuss, distinguish, estimate, explain, express, extend, generalize, give example(s), identify, indicate, infer, locate, paraphrase, predict, recognize, rewrite, report, restate, review, select, summarize, translate	grasping the meaning of information
Application	apply, change, choose, compute, demonstrate, discover, dramatize, employ, illustrate, interpret, manipulate, modify, operate, practice, predict, prepare, produce, relate schedule, show, sketch, solve, use write	applying knowledge to actual situations
Analysis	analyze, appraise, breakdown, calculate, categorize, classify, compare, contrast, criticize, derive, diagram, differentiate, discriminate, distinguish, examine, experiment, identify, illustrate, infer, interpret, model, outline, point out, question, relate, select, separate, subdivide, test	breaking down objects or ideas into simpler parts and seeing how the parts relate and are organized
Synthesis	arrange, assemble, categorize, collect, combine, comply, compose, construct, create, design, develop, devise, explain, formulate, generate, plan, prepare, propose, rearrange, reconstruct, relate, reorganize, revise, rewrite, set up, summarize, synthesize, tell, write	rearranging component ideas into a new whole
Evaluation	appraise, argue, assess, attach, choose, compare, conclude, contrast, defend, describe, discriminate, estimate, evaluate, explain, judge, justify, interpret, relate, predict, rate, select, summarize, support, value	making judgments based on internal evidence or external criteria

Original Source: http://www.nadn.navy.mil/CTL/bloom.htm