Student Learning Outcomes (SLOs) and Action Verbs

The purpose of SLOs are to help focus teaching and learning by stating what students should know, value, and be able to do at the end of a class or course of study. SLOs also serve as the basis for evaluating the effectiveness of the teaching and learning process. These SLOs are to be stated clearly on the course syllabus. After SLOs are written for a course, suitable assignments and grading rubrics can be developed to determine if, and how well, students attained the SLOs.

Because SLOs are about what students should know, value, and be able to do, they should be written with measurable outcomes.

•Students will be able to ***understand***…, ***analyze***…, ***explain***…
Avoid writing SLOs that do not have measurable outcomes.

•Students will be exposed to…, have an opportunity to…, will study…

Sample SLOs:

Math: The student will ***apply*** course material along with techniques and procedures covered in this course to solve problems.

Communications: The student will ***demonstrate*** understanding of the terminology and principles of public speaking through the production and performance of oral presentations and chapter quizzes.

Curriculum and Instruction: The student will ***explain*** the interactions of students, teachers, and materials in classrooms and the implications of these interactions for classroom environments.

Computer Game Development: The student will ***evaluate*** the game industry and market.

Kinesiology: The student will ***discuss*** the interaction of cognitive and motor development throughout the lifespan.

Nursing: The student will learn to ***assess*** the physical, emotional, social, and spiritual aspects of pain.

Art: The student will ***analyze*** his own work and ***interpret*** the work of others.

Physical Activity: The student will ***use*** swimming as a mode of cardiovascular exercise.

Music: The student will ***create*** original works of music.

The following tables list action verbs arranged by the cognitive, affective, and psychomotor domains. Use these words or equally active verbs to write your SLOs.

Cognitive Domain

Level	Action Verbs (some words may fit in more than one category)				
Remember **Retrieve relevant knowledge from long-term memory**	arrange copy define describe discover duplicate enumerate	examine identify label list listen locate match	memorize name observe omit order outline quote	read recognize relate recall recite record repeat	reproduce retell select state tabulate tell visualize
Understand **Construct meaning from instructional messages, including oral, written, and graphic communication**	ask associate cite classify compute contrast convert describe	differentiate discover discuss distinguish estimate express extend generalize	give example(s) group identify indicate infer judge locate	order paraphrase recognize report represent research restate	review rewrite select show summarize trace translate
Apply **Carry out or use a procedure in a given situation**	apply calculate change choose classify complete compute	construct demonstrate dramatize employ explain generalize graph	illustrate interpolate interpret judge manipulate modify operate	practice predict prepare produce relate schedule	show sketch solve subtract use write
Analyze **Break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose**	analyze appraise arrange breakdown calculate categorize change choose classify combine compare	compute contrast criticize demonstrate design detect develop diagram differentiate discover discriminate	distinguish dramatize examine experiment identify illustrate infer interpret manipulate model	modify operate outline point out practice predict produce question relate	schedule separate subdivide survey test
Evaluate **Make Judgements based on criteria and standards**	appraise arrange assemble assess categorize collect combine compare	compose conclude construct create criticize critique defend develop	design evaluate formulate generate hypothesize judge justify prepare	rearrange reconstruct relate reorganize revise rewrite set up	summarize synthesize tell value weigh write
Create **Put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure**	argue combine compose construct contrast	develop devise create critique design	estimate generate integrate interpret invent	make originate plan produce propose	recommend synthesize transform

References:

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, New York: Longman

Bloom, B.S. and Krathwohl, D. R. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain.* NY, NY: Longmans, Green.

Affective Domain

Level	Action Verbs			
Receiving (Attending)	accept accumulate ask attend choose	combine control develop differentiate listen (for)	point to receive recognize respond to select	separate set apart share
Responding	acclaim aid applaud approve answer augment	commend complete comply cooperate discuss examine	follow greet help perform play practice	respond select volunteer
Valuing	accept assist debate defend deny	devote help increase initiate measure	proficiency in propose protest pursue relinquish	specify seek subsidize support
Organization	abstract adhere arrange balance codify	compare define discriminate discuss order	formulate integrate modify organize	prepare systematize theorize weigh
Characterization by a Value or a Value Complex	avoid change complete display	exhibit influence internalize manage	practice question require resist	resolve revise verify

References:

Krathwohl, D.R., Bloom, B.S., and Masia, B.B. (1964). *Taxonomy of Educational Objectives: Handbook II: Affective Domain*. NY, NY: Longman Inc.

Psychomotor Domain

Level	Action Verbs	
Reflex Movements •Segmental Reflexes •Intersegmental Reflexes •Suprasegmental Reflexes	react respond	
Basic-Fundamental Movements •Locomotor Movements •Non-Locomotor Movements •Manipulative Movements	climb grasp jump reach stand	sway throw twist visually track walk
Perceptual Abilities •Kinesthetic Discrimination •Visual Discrimination •Auditory Discrimination •Tactile Discrimination •Coordinated Abilities	Catch Explore Distinguish between shapes, sounds, fabrics, and so forth by using senses write	
Physical Abilities •Endurance •Strength •Flexibility •Agility	endure exceed improve increase maintain repeat	
Skilled Movements •Simple Adaptive Skill •Compound Adaptive Skill •Complex Adaptive Skill	build craft dance drive	juggle play a musical instrument skate
Non-Discursive Communication •Expressive Movement •Interpretive Movement	Communicate feeling, emotion, and meaning through movement, gestures, and expressions	

References:

Harrow, A. J. (1972). *A Taxonomy of the Psychomotor Domain – A Guide for Developing Behavioral Objectives*. N.Y. David McKay Company, Inc.