**Course Outcomes**

**Bloom’s Taxonomy of learning domains: Course outcomes by domain**

The following charts can assist you in writing your course outcomes. The verbs in your course outcomes should align with the level of thinking students will need to do.

According to Blooms’ (1956) theory, learning can be classified into three domains:

* **Cognitive**: mental abilities (*Knowledge*)
* **Affective**: attitudes, feelings, values, or emotional areas (*Attitude*)
* **Psychomotor**: manual or physical skills (*Skills*)

**Cognitive Domain**

The cognitive domain (Bloom, 1956) involves knowledge and the development of intellectual abilities. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills.

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| **Category** | **Key Verbs** | **Examples** |
| **Remember:**  Retrieve relevant knowledge from long-term memory. | tell, list, recognize, describe, recite, locate, label, identify, memorize, define, match, name, outline, recall, reproduce, select, state | Students should be able to:  *Locate* different countries on the world map.  *Identify* styles of architecture in urban settings, such as downtown Calgary. |
| **Comprehend**:  perceive meaning and grasp mentally | explain, discuss, describe, clarify, compare, generalize, summarize, extend, paraphrase, represent, exemplify, illustrate, classify, contrast, convert, distinguish, instantiate, estimate, give examples, infer, interpret, rewrite | Students should be able to:  *Compare* different artistic painting styles.  *Explain* the formation process of igneous rock. |
| **Apply:**  Carry out or use a procedure or process theory in a given situation | solve, show, classify, use, execute, carry out, implement, choose, report, apply, compute, construct, demonstrate, manipulate, modify, operate, prepare, produce | Students should be able to:  *Solve* linear equations.  *Use* rhetorical strategies to make arguments in writing. |
| **Analyze:**  Break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose. | analyze, sort, contrast, investigate, separate, differentiate, break down, compare, diagram, deconstruct, illustrate, infer, outline, relate, organize, integrate, structure | Students should be able to:  *Differentiate* between plant and dwarf plant.  *Sort* a given set of plants by genus or species. |
| **Evaluate:**  Make judgments based on criteria and standards | judge, select, decide, debate, justify, verify, argue, assess, prioritize, predict, appraise, conclude, critique, defend, evaluate | Students should be able to:  *Debate* the extent to which human activities might affect climate change.  *Critique* the methodology section of a research article. |
| **Create:**  Put elements together; reorganize elements into a new pattern or structure. | create, invent, design, devise, formulate, hypothesize, produce, generate, plan, construct, compile, compose, organize, write | Students should be able to:  *Generate* a business plan based on the clients’ needs.  *Produce* an Individual Program Plan (IPP) for students with a learning disability. |

**Affective Domain**

The affective domain (Krathwohl, Bloom, Masia, 1973) includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasm, motivation, and attitudes.

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| **Category** | **Key Verbs** | **Examples** |
| **Receive:**  Open to experience; willing to listen | ask, listen, focus, attend, take part, discuss, acknowledge, hear, read | Students should be able to:  *Listen* to new information with neutrality. |
| **Respond:**  React and participate actively | react, respond, seek, discuss, interpret, clarify, provide additional examples, contribute, question | Students should be able to:  *Participate* actively in a group by contributing to or building on new ideas. |
| **Value:**  Identify values and express personal opinions | demonstrate, differentiate, explain, justify, propose | Students should be able to:  *Demonstrate* sensitivity towards individual and cultural differences. |
| **Conceptualize Values:**  Reconcile internal conflicts; develop value system | Build, develop, formulate, defend, modify, relate, prioritize, reconcile, contrast, arrange, compare | Students should be able to:  *Prioritize* emergency responses after a disaster. |
| **Internalize Values:**  Adopt belief system and philosophy | act, display, influence, solve, practice, propose, revise | Students should be able to:  *Revise* judgments and change behavior in light of new evidence. |

**Psychomotor Domain**

The psychomotor domain (Simpson, 1972) includes physical movement, coordination, and use of the motor skills.

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| **Category** | **Key Verbs** | **Examples** |
| **Imitate:**  Copy action of another; observe and replicate | Copy, follow, replicate, repeat, adhere | Students should be able to:  *Observe* and copy dance steps. |
| **Execute:**  Reproduce activity from instruction or memory | Re-create, build, perform, execute, implement | Students should be able to:  *Follow* instructions to dissect a shark. |
| **Perform:**  Execute skill reliably, independent of help | Demonstrate, complete, show, perfect, calibrate, control | Students should be able to:  *Fix* a leaking faucet. |
| **Adaption:**  Adapt and integrate expertise to satisfy a new objective | Construct, solve, combine, coordinate, integrate, adapt, develop, formulate, modify, master | Students should be able to:  *Drive* a vehicle in various weather conditions. |
| **Naturalize:**  Create new movement to fit a particular situation or specific problem. | Design, specify, manage, invent | Students should be able to:  *Create* a new gymnastic routine. |

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