Writing Course Packages with MCC

Effective Learning Outcomes and Competencies using Bloom's Revised Taxonomy

Bloom's Taxonomy progresses toward more complex or higher levels of critical thought, culminating with sophisticated thinking processes using concepts under study. Using these six categories, instructors can proceed to develop focused learning outcomes and competencies, as detailed below. The six levels of Bloom's taxonomy are as follows:

Lower Order Thinking Skills (LOTS)

1. Remembering: Basic recall of fact and data: times, dates, names, formulas, etc.
2. Understanding: Not just knowing the salient data associated with a concept, but also articulating relationships among data – to grasp the chief meaning of a concept.
3. Applying: Taking a concept under study and using it in a new or hypothetical situation to arrive at a correct answer.

Higher Order Thinking Skills (HOTS)

4. Analyzing: Breaking something into component parts – looking at individual items for trends or evidence for generalization.
5. Evaluating: Arguing for the validity or relative worth of a viewpoint or process, based on established criteria.
6. Creating: Presenting items or thoughts together in new ways, based on presented criteria.

Good course design begins and ends with solidly written outcomes and competencies. These serve as guideposts, both for students taking the course and instructor(s) facilitating the course.

Course Learning Outcomes (CLOs): Simply put, a student learning outcome is a written statement of what a student should be able to do, think, or feel **after** completing the course. They should be broadly stated. There should only be one Bloom's verb per course outcome.

- Limit the outcomes to 3-5 statements for the entire course.
- Focus on overarching or general application and/or skills (rather than small or trivial details) that are central to the course topic and/or discipline.
- Create statements that are learner-centered rather than faculty-centered.
- Outcomes are measurable.
- Focus on the learning that results from the course rather than describing activities or lessons in the course.
- Incorporate various ways for students to show success (Apply, demonstrate, create, modeling, depicting, etc.).
- Align with MCC's General Education Philosophies by placing the number, referring to the philosophy, after the outcome in parenthesis.

Competencies should be written broadly to encompass the learning expectations **within** the course. A competency should have only one verb. The Bloom's verb should be at a level appropriate for the course. Typically, 100 and 200 level courses will be basic, building block courses and the verbs should reflect this. Not all courses will have HOTS. It is perfectly acceptable that a 100 or 200 level course remain in the LOTS, but dip into the HOTS occasionally.

- Competencies are outcomes focus on what the learner needs, not the instructor. They are learner-focused.
- Competencies are measurable.
- Competencies guide all subsequent teaching activities, including choosing what is to be learned (content), how it can be learned (teaching strategies and tools), and whether or not it was learned (evaluation of outcomes).
- Competencies are phrased in succinct, simple (one verb) phrases, each of which begins with a specific Bloom's verb. This verb should suggest the form of assessment used to determine whether the competency has been met. Avoid using vague words like "understand," "know," or "appreciate," as they invariably denote a range of meanings so broad as to be useless in communicating expectations to students and difficult to measure mastery. Deciding where the competency fits into Bloom's taxonomy of critical thinking can often help. A useful chart has been provided at the end of this document with a categorized selection of strong action verbs. This is not a comprehensive list.

- Competencies should link to at least one course outcome. See example below.

Course Outline is concept based. What are the overarching concepts that clarify what will be taught during the course?

EXAMPLE Course package structure from ENG 101 English Composition I

CLO: 3. Apply writing conventions: voice, tone, diction, grammar, and mechanics. (2)
Competencies: 6 Compose essays that employ writing conventions appropriately and consistently.
Outline
VI. Writing Conventions
       A. Diction
       B. Tone
             1. colloquial
             2. informal
             3. formal
       C. Voice
             1. active
             2. passive
       D. Meanings
             1. denotative
             2. connotative
       E. Inclusive language
       F. Creative descriptions
       G. Fundamentals
             1. grammar
             2. punctuation
             3. structure

Learning outcome and competency verbs are important and helpful

The verbs used in learning outcomes and competencies often indicate the level of thought at which students are functioning. Unfortunately, many verbs often utilized in learning objective are open to misinterpretation.

The following verbs should be avoided because they are difficult to observe or measure.		
Know	Learn	Understand
Discuss	Appreciate	Comprehend
Believe	Have faith	Realize
Judge	Predict	Recognize
Review	Interpret	Practice
Explain		

The following lists are provided to help recognize the levels of thought and to write outcomes and competencies that address the various levels of skill your student should attain. Some verbs may be found in more than one list. When determining the learning outcomes or competencies for your course, consider using a verb from the appropriate cognitive domain below.

Remembering (LOTS) – Lowest level

Operational Verbs			Associated Activities	
Count	Point	Relate	Definitions	Matching
Define	Provide	Repeat	Multiple Choice test	Reading text
Distinguish	Quote	Draw	Short answer test	Labeling
Read	State	Indicate	Providing examples	
Recall	Tabulate	List	Scavenger hunt	
Arrange	Underline	Record	Reciting concepts	
Outline	Match		Identifying terms	

Understanding (LOTS)

Operational Verbs			Associated Activities	
Associate	Distinguish	Locate	Analogies	Simple comparison
Classify	Compare	Estimate	Discussion Board	Summary
Rephrase	Summarize	Compute	Drawing/Illustrating	Written report
Extrapolate	Conclude	Contrast	Multiple Choice test	Outline
Differentiate	Translate	Illustrate	Short answer test	
Estimate				

Applying (LOTS)

Operational Verbs			Associated Activities	
Apply	Illustrate	Calculate	Data Manipulation	Solution
Produce	Implement	Purchase	Demonstration	Simulation
Choose	Relate	Install	Forecast	
Modify	Demonstrate	Repair	Graph	
Conduct	Show	Solve	Presentation	
Order	Transfer	Employ	Problem set	
Prepare	Utilize	Classify	Programming	
Compile	Manipulate	Compute	Project	
Construct	Present		Role Play	

Analyzing (HOTS)

Operational Verbs			Associated Activities
Analyze	Distinguish	Investigate	Analyze Research
Classify	Divide	Outline	Case Study
Compare	Examine	Construct	Comparison
Diagram	Reduce	Group	Deductive Reasoning
Relate	Detect	Identify	Discussion
Separate	Diagram	Illustrate	Graphs
Summarize	Differentiate	Transform	Problem exercise
Simplify	Appraise	Categorize	Report
Deconstruct			Troubleshoot

Evaluating (HOTS)

Operational Verbs			Associated Activities	
Appraise	Determine	Rate	Argument	Self evaluation
Argue	Estimate	Recommend	Case Study	Survey
Assess	Evaluate	Regulate	Critique	Test Case Scenario
Compare	Grade	Select	Debate	Values Statement
Contrast	Test	Rank	Evaluation	Written Conclusion
Critique	Criticize	Defend	Project	
Discriminate	Support	Interpret	Recommendation	

Operational Verbs			Associated Activities	
Arrange	Develop	Plan	Assemble code	Project
Assemble	Formulate	Design	Concept development	Proposal
Prepare	Manage	Invent	Create an Application	Problem Solution
Build	Generate	Prescribe	Experiment	Simulation
Combine	Integrate	Produce	Formulate a plan	Invention
Construct	Originate	Synthesize	Data collection	
Compose	Create		Modify design plans	