DMACC Essential Learning Outcomes

Outcome 1: Discipline Knowledge

In order to excel within a discipline, students must acquire knowledge foundational to the subject matter. Students can be assessed on a segment of discipline knowledge appropriate to study within a single course or an entire program. Discipline knowledge includes the following:

- terminology
- knowledge of processes, procedures, skills, and techniques
- facts and information
- knowledge of history, cultures, and the arts
- concepts, laws, principles, and ideas
- strategic knowledge
- self-knowledge, or metacognitive awareness of oneself or one’s knowledge base

**Measurable Verbs:** Course-level assessments that measure discipline knowledge will often correlate to Bloom’s Taxonomy verbs at Levels 1-3 and will ask students to remember, understand, and/or apply knowledge (See “Bloom’s Taxonomy Verbs” for more options). However, instructors often ask students to analyze (Level 4) or evaluate (Level 6) discipline knowledge and sometimes to construct (Level 5) something new with knowledge gained.

Outcome 2: Critical Thinking

Critical thinking is the process of analyzing complex information in order to reach sound, well-supported conclusions. This form of analysis can be applied to readings, data, situations, objects, or interactions with others. Critical thinking is always discipline-specific, and will vary in appearance and application. Instructors and students should ask, “What are the important processes and patterns of thought that a skilled practitioner in this discipline should demonstrate?” Critical thinking includes the following processes:

- analyzing
- arguing
- assessing
- comparing and contrasting
- constructing
- critiquing
- designing
- diagnosing
- distinguishing
- evaluating
- examining
- interpreting
- inventing
- judging
- producing
Measurable Verbs: In addition to the verbs listed above, course-level assessments that measure critical thinking will ask students to **analyze**, **interpret**, and **assess** (Bloom's Taxonomy Levels 4 and 6) complex information and **produce** (Level 5) conclusions with supporting evidence.

**Outcome 3: Communication Skills**

Clear, effective, and persuasive communication is vital to all disciplines. Students should learn practical skills in writing, speaking, and visual communication. Though assignments will be discipline-specific, students should be assessed primarily on communication skills for this outcome. Communication includes the following:

- writing assignments
- Journalism
- writing for electronic media
- foreign languages
- speeches, debates, and presentations
- non-verbal communication
- visual depictions of information
- Graphic Design and visual arts

Measurable Verbs: Course-level assessments that measure communication skills will ask students to **produce** (Level 5) college-level written, oral, and visual messages while **demonstrating** (Level 3) strong technical and persuasive skills. Additionally, students may be asked to **summarize** (Level 2), **analyze** (Level 4) or **evaluate** (Level 6) course content in writing assignments or speeches.

**Outcome 4: Problem-Solving**

Problem-solving is the process of defining, identifying, and analyzing an unresolved issue before applying a successful solution. Though critical thinking is involved, problem-solving assessments are often more focused on realized outcomes and finished products.

Problem-solving assessments are likely to be found in the following:

- quantitative problems
- laboratory experiments
- complex, open-ended problems
- simulations
- group work
- hands-on assignments
- diagnostic work
- assignments asking for real-world solutions
- assignments asking for inventiveness

Measurable Verbs: Course-level assessments that measure problem-solving will ask students to **analyze** problems (Level 4), **generate** solutions (Level 5), and **evaluate** (Level 6) strategies for achieving a desired goal.
Outcome 5: Collaboration

While collaborative coursework is capable of measuring student work related to critical thinking, problem-solving, and any other outcome imaginable, educators can directly assess the skills and attitudes necessary for strong collaborative work.

The following guidelines should be used to assess collaboration:

- Collaboration skills should be assessed on an individual basis, not by assessing the group’s results as a whole.
- Instructors can use direct observation, feedback from other group members, and/or student reflection as part of the evaluation.
- A rubric with a range of qualities should be used, including effort, interaction with others, quantity and quality of contributions, and time management skills.
- Instructors should consider how students foster a positive and productive team environment.

Measurable Verbs: Course-level assessments that measure collaboration will ask students to demonstrate (Level 3) teamwork skills, create (Level 5) a respectful and constructive environment with others, and evaluate (Level 6) their own collaboration skills.

Bloom’s Taxonomy Verbs

Course competencies at DMACC are written and organized according to Bloom’s Taxonomy. Each competency begins with a verb classified according to the following list. For more information, visit the DMACC Curriculum Commission webpage.

Level 1: Count, Define, Describe, Enumerate, Find, Identify, Know, Label, List, Match, Name, Read, Recall, Recite, Record, Remember, Reproduce, Select, Sequence, State, View, Write

Level 2: Classify, Cite, Comprehend, Conclude, Describe, Discuss, Estimate, Explain, Generalize, Give examples, Illustrate, Interpret, Locate, Make sense of, Paraphrase, Predict, Report, Restate, Review, Summarize, Trace, Understand

Level 3: Apply, Assess, Change, Chart, Choose, Compute, Construct, Demonstrate, Determine, Develop, Establish, Instruct, Predict, Prepare, Produce, Relate, Report, Select, Show, Solve, Use

Level 4: Analyze, Break down, Characterize, Classify, Compare, Contrast, Correlate, Diagram, Differentiate, Discriminate, Distinguish, Examine, Illustrate, Infer, Limit, Outline, Point out, Prioritize, Relate, Separate, Subdivide

Level 5: Adapt, Categorize, Compose, Construct, Create, Design, Formulate, Generate, Incorporate, Integrate, Invent, Modify, Organize, Perform, Produce, Propose, Reinforce, Reorganize, Rewrite, Structure, Synthesize

Level 6: Appraise, Argue, Assess, Choose, Compare and Contrast, Conclude, Critique, Decide, Defend, Evaluate, Interpret, Judge, Justify, Predict, Prioritize, Prove, Rank, Rate, Reframe, Support