Using the Quantitative Literacy Rubric

At the associate's degree level, quantitative literacy presents accurate interpretations of quantitative information on political, economic, health related or technological topics and explains how both calculations and symbolic operations are used in those offerings. At the associate's level, students create and explain graphs or other visual depictions of trends, relationships or change in status.

Waubonsee's Outcome: Make judgements or draw appropriate conclusions based on the quantitative analysis of data.

To assess a College Learning Outcome in your course, select two applicable criteria to assess quantitative literacy in your course, you can modify the rubrics to be discipline/program specific.

Interpretation is the ability to explain information presented in mathematical forms (e.g. equations, graphs, diagrams, tables or words). These can be measured by asking students to explain what they have viewed or read to prepare for their work or analysis.
Representation is the ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words) These can be measured by asking your students for results/findings/observations in a graphic/chart etc. and then explain in narrative/written form their findings in words.
Calculation is the ability to determine the size or number of something. These can be measured through mathematical calculations
Application/Analysis Ability to make judgements and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis. To determine if student can meet application and analysis, ask them what the data means, why the information informs and why it is significant or important.
Assumptions are the ability to make judgments and evaluate important assumptions in estimation, modeling and data analysis. These can be measured by asking your students to list and describe assumptions they need to make about the data, process or analysis they will use.
Communication Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized) Quantitative Literacy communication can be measured in an argumentative paper or speech where data is used to support a position.

You are welcome to modify the CLO rubric: The AAC&U VALUE rubrics were designed to be modified to increase faculty and student understanding of the criteria so that the resulting assessments will accurately reflect the learning and assessment activity. A Critical Thinking Discipline and Program Modified Rubric is available for use on the College Learning Outcomes web page in the Critical Thinking section. Criteria on the modified rubric were created by faculty at Salt Lake City Community College and

are an option for you to use. We would like to build more modified rubrics for our other CLOs. If you would like to customize one of the CLO rubrics and need some assistance, reach out to kgorski@waubonsee.edu.

References

Association of American Colleges and Universities (AAC&U). (2009). *Quantitative literacy VALUE rubric.* Retrieved from https://www.aacu.org/value/rubrics/quantitative-literacy

The Lumina Foundation (n.d) *The degree qualifying profile*. Retrieved from: http://degreeprofile.org/read-the-dqp/dqp-cover/

Zane, T. (2014) *Quantitative literacy rubric development guide.* Retrieved from: http://www.slcc.edu/assessment/docs/Quantitative%20Literacy%20Rubric%20Development%20Guide%202014.pdf