TEXAS A&M UNIVERSITY
Office of Institutional Effectiveness & Evaluation

# Texas A&M University Core Curriculum
# Empirical & Quantitative Skills Computational Rubric

## Definition

The Texas Higher Education Coordinating Board states that the Texas Core Curriculum objective of Empirical & Quantitative Skills is "to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions."[1] Further, the American Association of Colleges & Universities (AAC&U) notes: "Individuals with strong QL [quantitative literacy] skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate)."[2]

## Framing Language

This rubric is designed to be applied to student-produced work (artifacts), from a range of disciplines and a variety of genres. Ideally, the artifact assessed with this rubric will be produced by an individual student; however, this rubric may also be applied to group projects. The application of this rubric requires students to document their calculations as opposed to, for example, only selecting a multiple-choice answer.

[1] 19 Tex. Admin. Code §4.28 (2021).
[2] American Association of Colleges & Universities. (2009). *Quantitative literacy VALUE rubric*. https://www.aacu.org/initiatives/value-initiative/value-rubrics/value-rubrics-quantitative-literacy

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| | **Advanced** 8 | 7 | **Competent** 6 | 5 | **Developing** 4 | 3 | **Beginner** 2 | 1 | **Not Present** 0 |
|---|---|---|---|---|---|---|---|---|---|
| **Set Up** | Efficiently represents problem in its entirety. | | Represented problem adequately but not in the most efficient or complete way. | | Represented with some relationship to the problem. | | Represented with little to no relationship to the problem. | | No set up provided. |
| **Computation** | Calculations include no errors. | | Calculations include few errors. | | Calculations include some errors. | | Calculations are inaccurate or inappropriate. | | No calculation provided. |
| **Interpretation** | Results are competently and thoroughly interpreted with no errors. | | Results are competently interpreted but with minor omissions or inaccuracies. | | Results are partially or incorrectly represented. | | Results are not interpreted in the context of the problem. | | No results provided. |

Adapted from the TAMU-developed Mathematics Empirical & Quantitative Skills Rubric (2014).