

REASONING FOR NO VOTES



MTH 108 - QUANTITATIVE REASONING (3 SH)

Submitted by ACCS for entire community college system for inclusion in AREA III for non-stem majors only.

- 17 Yes Votes
- 5 No Votes (see reasons for no votes below)
- 6 Did Not Vote

1) The content of this course is much lower than I would expect for a college level course. All of the topics fall within the Grades 6–8 range of the Alabama Course of Study. Additionally, The student learning outcomes do not reflect mathematical or statistical reasoning at a college level. There is no way that this course would possibly be given approval for a Math designation at our institution if it was proposed at our institution.

2) Students should not be able to earn a Bachelors degree by taking one math class that does not have any prerequisite or placement requirement.

3) This seems like an "easier" version of MA 110 and I'm guessing a lot of the basic ideas are the same. Our institution does not have a math class like this in the catalog for it to transfer in as.

4) This course does not contain the rigor to classify as an Area III transferable course for Bachelors of Arts degrees.

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5) The proposed course does not rise to the level of high-school mathematics, some of which we cover in Precalculus. The standard document that provides the framework for the Grades K-12 mathematics program in Alabama's public schools is the Alabama Course of Study – Mathematics (ACOS-M) <https://www.alabamaachieves.org/wp-content/uploads/2021/03/2019-Alabama-Mathematics-COS-Rev.-6-2021.pdf>.

According to this document, the topics in the proposed course can be mapped to those covered mostly in Grades 6-8 as follows.

1. Problem-solving procedures and strategies, rounding and estimation, and determining the reasonableness of answers to real world problems (Grade 3, ACOS-M p. 40)
2. Introduction to statistics including organizing, describing, and interpreting real world data, using various charts and graphs, and calculating and interpreting the range and measures of central tendency (Grade 6, ACOS-M p. 65)
3. Integers, absolute value, and using order of operations to correctly perform calculations involving integers (Grade 7, ACOS-M p. 70)
4. Integer exponents, scientific notation, rules of integer exponents, and using scientific notation in solving application problems (Grade 8, ACOS-M p. 76)
5. Solving linear equations, including real world applications (Grade 8, ACOS-M p. 74)
6. Ratios and proportions including representing ratios as fractions and solving application problems involving proportions (Grade 6, ACOS-M p. 62)
7. Percents including converting between fraction, decimal, and percent forms of a number, solving problems involving percents such as percent increase or decrease, and evaluating the validity of claims involving percents (Grade 6, ACOS-M p. 62)
8. Financial literacy including calculating take-home pay and tracking expenses, preparing a budget, saving for long-term expenses, and calculating simple interest (Grade 7, ACOS-M p. 69)
9. Introduction to probability including basic theoretical and empirical probability, tree diagrams, the fundamental counting principle, and factorial notation (Grade 8 Accelerated, ACOS-M p. 103)
10. Problem solving involving basic geometric and trigonometric concepts including the Pythagorean Theorem, special right triangles (30-60-90 and 45-45-90), and basic trigonometric ratios. (Grade 8, ACOS-M p. 79)
11. Measurement including fundamental definitions, standard systems, converting within and between systems, and application problems including implications of improperly converting within and between systems