

MTH 098 : MATH LITERACY

Transcript title

Math Literacy

Credits

4

Grading mode

Standard letter grades

Total contact hours

40

Lecture hours

40

Prerequisites

MTH 015 (or higher) or STAT 243Z or minimum placement in Math Level 7.

Course Description

Builds on MTH 015 to present mathematics in the context of “math you encounter in your daily life”. Introduces and applies pattern recognition, estimation and number sense, working with units, negative numbers, order of operations, and using basic equations and formulas. Explores how to clearly communicate arguments supported by quantitative evidence using words, tables, graphs, and when appropriate, equations and mathematical models.

Course learning outcomes

1. Use fractions, percents, ratios and decimals in an applied setting.
2. Develop rationale for and utilize unit arithmetic, including dimensional analysis, in context.
3. Glean data from and create graphical and tabular displays of information.
4. Use order of operations in context, including with signed numbers.
5. Apply formulas and mathematical models when appropriate.

Content outline

1. Use fractions, percents, ratios and decimals in an applied setting
2. Convert among fractions, decimals, and percentages
3. Develop rationale for and utilize unit arithmetic, including dimensional analysis, in context
4. Use customary and metric units for measurement and calculation
5. Convert from any unit to any other appropriate unit using dimensional analysis
6. Convert any rate into “x per 1” or “1 per x” (unit rate) format, and use the results to compare rates graphical displays
7. Glean data from and create graphical and tabular displays of information
8. Read and interpret tables, bar graphs, scatterplots, line graphs, and pie charts (and additional graphical displays as desired)
9. Create tables, and graphical displays by hand (when convenient) and using spreadsheet technology (when sensible)

10. Use order of operations in context, including with signed numbers
11. Recognize the need for and apply formulas and mathematical models when appropriate
12. Use spreadsheet technology to perform a linear regression on data

Required materials

This course uses materials generated by the COCC math department faculty.