



STEPHEN F. AUSTIN STATE UNIVERSITY

Department of Mathematics and Statistics

MATH 0302 – Foundations of Quantitative Literacy Course Syllabus

Course Description: MATH 0302 is a developmental mathematics course designed for students who are not TSI-complete in mathematics and who need **MATH 1332 (Contemporary Mathematics)** or **MATH 1342 (Elementary Statistical Methods)** to meet the mathematics requirement of their major. This course strengthens students' quantitative reasoning, problem-solving, and critical-thinking skills in preparation for success in non-algebra-intensive, college-level mathematics.

Topics include numeracy and estimation, proportional and statistical reasoning, interpreting graphs and tables, ratios and percentages, units and dimensional analysis, data analysis, and applications of linear and exponential models in real-world contexts. Emphasis is placed on mathematical communication, reasoning, and the use of appropriate technology for problem solving.

This is a **non-credit, non-transferable course** that serves as a prerequisite or corequisite support for MATH 1332 or MATH 1342.

Credit hours: 3

Course Outline: Units may include—

1. Study skills development
2. Logic and reasoning
3. Set theory and representation
4. Number concepts and operations
5. Algebraic concepts
6. Applications of arithmetic
7. Statistics and data analysis
8. Formula evaluation practice

Student Learning Outcomes (SLO): Upon successful completion of this course, students will be able to:

1. Apply arithmetic, proportional, and percent reasoning to real-world contexts.
2. Interpret and analyze quantitative information presented in tables, graphs, and charts.
3. Use estimation and reasonableness to evaluate numerical results.
4. Perform operations with real numbers without a calculator and apply order of operations appropriately.
5. Solve and interpret problems involving ratios, proportions, and rates.
6. Use formulas and units to model and solve applied problems.
7. Summarize and interpret basic statistical data.
8. Communicate quantitative ideas clearly using appropriate mathematical language and notation.
9. Demonstrate the ability to learn independently using study strategies and self-assessment tools.

There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and/or a service course.

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