

CORE CURRICULUM COMPONENT APPLICATION
Texarkana College

Part I: Course Information

Course Type

- Existing/Restructured
 New Course

Course Prefix & Number: Math 1324

Texas Common Course Number (TCCN): 1324

Course Title: Finite Math

Course Catalog Description

Finite Math (3, 3, 0). The study of mathematical applications in business, life sciences, and social science. Topics in this course include set theory, systems of linear equations, matrices, linear inequalities and linear programming, mathematics of finance, elementary probability theory, and topics in probability.

Course Prerequisites:

MATH 0033, MATH 1314 or satisfactory placement scores. (TSI Scores: 270 or above. After August 25, 2013, students will be required to meet new scores based on the TSI Assessment Test).

Available Online?

- Yes
 No

Part II: THECB Course Objectives

1. Solve equations involving quadratics, logarithms, and exponentials.
2. Graph polynomial, logarithmic, and exponential functions.
3. Graph linear inequalities and interpret graphs of linear inequalities.
4. Solve systems of linear equations in two and three variables.
5. Perform optimization using linear programming.
6. Perform financial calculations using simple interest, compound interest, and ordinary annuities.
7. Perform matrix operations and use matrices to solve systems of linear equations.

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<p>Part III: THECB Skill Objectives</p> <p>1. Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information</p> <p>2. Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication</p> <p>3. Empirical and Quantitative Skills: to include applications of scientific and mathematical concepts.</p>
<p>Part IV: Course Student Learning Outcomes (SLO)</p> <ol style="list-style-type: none"> 1. Solve equations involving quadratics, logarithms, and exponentials. 2. Graph polynomial, logarithmic, and exponential functions. 3. Graph linear inequalities and interpret graphs of linear inequalities. 4. Solve systems of linear equations in two and three variables. 5. Perform optimization using linear programming. 6. Perform financial calculations using simple interest, compound interest, and ordinary annuities. 7. Perform matrix operations and use matrices to solve systems of linear equations.

Skill Objective:	Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
THECB Course Objective	Perform financial calculations using simple interest, compound interest, and ordinary annuities.
Course Student Learning Outcome	Perform financial calculations using simple interest, compound interest, and ordinary annuities.
General Learning Activities	Students will be given 2 financial scenarios and will decide which is the best option.
Assessment <i>Must Include Assignment & Rubric</i>	The assignment will be to use the 2 financial scenarios, for example, purchasing a \$27,000 car at 0% interest for 60months, or receiving a \$5000 rebate and financing at 6% interest, to decide on the best option. Students will find the monthly payment, total amount paid over time, and analyze the results to draw a conclusion. This will be assessed using the Critical Thinking Skills rubric.

Skill Objective:	Communication Skills: to include effective written, oral, and visual communication
THECB Course Objective	Perform financial calculations using simple interest,

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	compound interest, and ordinary annuities.
Course Student Learning Outcome	Perform financial calculations using simple interest, compound interest, and ordinary annuities.
General Learning Activities	Students will be given 2 financial scenarios and will decide which is the best option.
Assessment <i>Must Include Assignment & Rubric</i>	The assignment will be for students to communicate the analysis, results, and conclusion of their findings in a written report as well as a class presentation using the media of their choice. The Communication Skills rubric will be used to assess communication skills.

Skill Objective:	Empirical and Quantitative Skills: to include applications of scientific and mathematical concepts.
THECB Course Objective	Perform financial calculations using simple interest, compound interest, and ordinary annuities.
Course Student Learning Outcome	Perform financial calculations using simple interest, compound interest, and ordinary annuities.
General Learning Activities	Students will be given 2 financial scenarios and will decide which is the best option.
Assessment <i>Must Include Assignment & Rubric</i>	The assignment will be for students to find the monthly payment, and total amount paid for two different scenarios using financial calculations for present value formulas. The results will then be used to determine which is the best option. The Empirical and Quantitative Skills rubric will be used to assess empirical and quantitative skills.