

CORE CURRICULUM COMPONENT APPLICATION
Texarkana College

Part I: Course Information

Course Type

- Existing/Restructured
 New Course

Course Prefix & Number: Math 1332

Texas Common Course Number (TCCN): 1332

Course Title: Math for Liberal Arts

Course Catalog Description

Math for Liberal Arts(3,3,0). A knowledge of intermediate algebra is essential. Topics include the mathematics of finance, probability, statistics, logic and reasoning, computer and software, problem solving and geometry. This course does not count towards a mathematics degree.

Course Prerequisites:

MATH 0033 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. Use inductive and deductive reasoning to make a conjecture.
2. Use problem solving strategies to solve word problems.
3. Apply the information on sets to write a set, list the subsets of a set and determine if a set is well defined or not.
4. To perform the set operations of union, intersection and complement.
5. To construct and apply venn diagrams.
6. To perform the operations of addition, subtraction, multiplication and division in different bases.
7. Apply the information on truth tables to a given statement.
8. Find the mean, mode, median, range and standard deviation of a set of given data.
9. Determine the probability of a given event.

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Part III: THECB Skill Objectives

- 1. Critical Thinking Skills:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2. Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 3. Empirical and Quantitative Skills:** to include applications of scientific and mathematical concepts.

Part IV: Course Student Learning Outcomes (SLO)

1. Use inductive and deductive reasoning to make a conjecture.
2. Use problem solving strategies to solve word problems.
3. Apply the information on sets to write a set, list the subsets of a set and determine if a set is well defined or not.
4. To perform the set operations of union, intersection and complement.
5. To construct and apply venn diagrams.
6. To perform the operations of addition, subtraction, multiplication and division in different bases.
7. Apply the information on truth tables to a given statement.
8. Find the mean, mode, median, range and standard deviation of a set of given data.
9. Determine the probability of a given event.

Skill Objective:	Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
THECB Course Objective	Find the mean, mode, median, range and standard deviation of a set of given data.
Course Student Learning Outcome	Find the mean, mode, median, range and standard deviation of a set of given data.
General Learning Activities	Students will collect data and use their critical thinking skills to determine the appropriate measure of center. They will also determine how the removal of data will change each measure of center.
Assessment <i>Must Include Assignment & Rubric</i>	The assignment will be for students to collect data and calculate the mean, median and mode for the data set. They will determine the best measure of center for the data, then eliminate outliers from the data set and

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	<p>analyze how the removal affects each measure of center.</p> <p>This will be assessed using the Critical Thinking Skills rubric.</p>
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Skill Objective:	Communication Skills: to include effective written, oral, and visual communication
THECB Course Objective	Find the mean, mode, median, range and standard deviation of a set of given data.
Course Student Learning Outcome	Find the mean, mode, median, range and standard deviation of a set of given data.
General Learning Activities	Students will collect data and use their critical thinking skills to determine the appropriate measure of center. They will also determine how the removal of data will change each measure of center.
Assessment <i>Must Include Assignment & Rubric</i>	<p>The assignment will be for students to communicate the analysis, results, and conclusion of their data collection in a written report as well as a class presentation using the media of their choice.</p> <p>The Communication Skills rubric will be used to assess communication skills.</p>

Skill Objective:	Empirical and Quantitative Skills: to include applications of scientific and mathematical concepts.
THECB Course Objective	Find the mean, mode, median, range and standard deviation of a set of given data.
Course Student Learning Outcome	Find the mean, mode, median, range and standard deviation of a set of given data.
General Learning Activities	Students will collect data and use their critical thinking skills to determine the appropriate measure of center. They will also determine how the removal of data will change each measure of center.
Assessment <i>Must Include Assignment & Rubric</i>	<p>The assignment will be for students to find the mean, median and mode of the data set collected, then remove any outliers and find the mean, median and mode of the data set with the outliers removed. They will then compare the calculated measures of center of both data sets.</p> <p>The Empirical and Quantitative Skills rubric will be used to assess empirical and quantitative skills.</p>

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