



South Central College

MATH 0099 Elementary Statistics Corequisite

Common Course Outline

Course Information

Description	This course provides support for students taking MATH 154 and must be taken simultaneously with MATH 154 to further develop skills needed for successful completion of the course. MATH 99 consists of topics including order of operations, exponent rules, polynomials, radical expressions, graphing, and the solution of equations and inequalities. Corequisite: MATH 154.
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Total Credits	2
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Total Hours	32
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Types of Instruction

Instruction Type	Credits/Hours
Lecture	2/32

Pre/Corequisites

Classic Accuplacer score 30+ in Arithmetic

OR

220+ Arithmetic

OR

18 or below on the Math portion of the ACT

OR

MCA score 750+

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Outcomes

1. **Review arithmetic operations.**

Learning Objectives

Use the order of operations to simplify expressions.
Apply place value to rounding rules.
Estimate sums and differences with rounded decimal numbers.
Estimate products and quotients with rounded decimal numbers.
Change decimals to percents.
Change percents to decimals.
Apply basic concepts of fractions.
Determine the opposite and absolute values of numbers.
Compute the average from raw data.

2. Describe proportions and percentages.

Learning Objectives

Convert fractions to percents.
Resolve applications involving proportions.
Solve percentage applications.

3. Complete calculations in scientific notation and interpret the results.

Learning Objectives

Perform calculations in scientific notation.
Convert between scientific notation and decimal form.

4. Solve algebraic linear equations in two variables.

Learning Objectives

Solve algebraic equations.
Identify the slope of a linear function.
Identify the x and y intercepts of the linear function.
Produce the equation of a line.
Draw conclusions from the graph of linear functions.
Apply the distance and midpoint formulas.

5. Identify the characteristics of the linear function and use those to graph the function.

Learning Objectives

Graph linear equations.
Interpret graphing in the Cartesian coordinate plane.
Construct scatter plots on the Cartesian coordinate plane.
Analyze and construct charts, tables, and graphs.

6. Solve linear inequalities algebraically and graphically.

Learning Objectives

State the solution set for the inequality in algebraic and/or interval notation.
Identify the slope and intercepts represented by the inequality.
State the solution set for the inequality in algebraic notation and interval notation.
Recognize the real-world application of inequalities.
Solve inequalities containing absolute values.

7. Evaluate expressions containing exponentials.

Learning Objectives

Define the general exponential and radical equations,
Use appropriate algebraic manipulation to solve equations involving radicals.
Rewrite equations with radicals to equations with rational exponents.
Model real-world problems.

8. Evaluate algebraic rational expressions.

Learning Objectives

Generate equivalent algebraic expressions.
Add, subtract, multiply, and divide rational expressions.
Use algebraic properties to evaluate expressions.

SCC Accessibility Statement

Disability Services provides accommodations and other supports to students with permanent and temporary disabilities that affect their SCC experience. Disabilities may include mental health (anxiety, depression, PTSD), ADHD, learning disabilities, chronic health conditions (migraine, fibromyalgia), sensory disabilities, and temporary disabilities (broken arm, surgery). Common accommodations are extended test time, private room for testing, audiobooks, and sign language interpreter.

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