MTH 060: Topics in Developmental Mathematics

This course presents selected topics in developmental algebra to support students registered for a paired college-level mathematics course. Topics will be selected by the Mathematics Department to coincide with those needed in the college-level course. MTH 060 cannot be used to meet General Education Requirements, nor do the credits apply to a degree. Co-requisite(s): MTH 119S, MTH 125S, MTH 127S, MTH 131S, or MTH 152S. Three lecture hours per week. Instructional Support Fee applies.

Course Student Learning Outcomes

Students who successfully complete this course might be able to: 1. Demonstrate study skills and habits necessary to succeed in a college math class. 2. Perform all arithmetic operations on whole numbers, integers, fractions and decimals (rational numbers), including order of operations, exponential notation, and comparing numbers. 3. Use the properties of real numbers (commutative, associative, and distributive) to manipulate and evaluate arithmetic expressions. 4. Convert between fraction notation, decimal notation, and percent notation and solve applications. 5. Use the concept of perimeter, area, and volume in real world applications. 6. Find mean, median, and modes of data set. 7. Read pictographs, bar graphs, histograms, circle graphs, and line graphs. 8. Convert between standard notation and scientific notation. 9. Apply ratios and proportions to real world applications. 10. Use the metric and American measurement systems to solve real-world applications, including unit conversions. 11. Evaluate formulas and solve formulas for a given variable. 12. Graph linear equations and inequalities, find the slope and intercepts of lines, and solve related real-world applications. 13. Write an equation of a line in slope-intercept from, point-slope form, and standard from and solve related real-world applications. 14. Solve systems of linear equations graphically, by substitutions, by elimination, including real-world applications. 15. Solve linear inequalities algebraically and systems of linear inequalities in two variables graphically, including real-world problem applications. 16. Evaluate exponential expressions, use rules of exponents with integer exponents. 17. Evaluate, add, subtract, multiply, and divide polynomials. 18. Determine and factor greatest common and factor an expression by grouping. 19. Factor trinomial of the form x^2+bx+c, perfect square trinomial, the difference of two squares, sum and differences of two cubes. 20. Solve quadratic equations by factoring, including real-world applications. 21. Simplify and perform arithmetic operations on rational expressions. 22. Simplify and perform arithmetic operations on radical expressions and expressions with rational exponents. 23. Solve rational and radical equations.

Credits: 3

Co-Requisites:

MTH-119S, MTH-125S, MTH-127S, MTH-131S, MTH-152S

Program: Mathematics