



# Course Competency Report by Code

Code: C286

## Middle School Mathematics: Content Knowledge (C286)

Course of Study: C286 - Middle School Mathematics: Content Knowledge

Course Level: Undergraduate

Course Division: Senior

Discipline: Mathematics

Course Type:

Department: Mathematics

COMPETENCY #	COMPETENCY NAME	COMPETENCY TEXT
124.1.1	Real Numbers and Algebraic Expressions	The graduate uses properties of numbers to analyze and evaluate numeric and algebraic expressions.
124.1.2	Equations and Inequalities	The graduate solves equations and inequalities and applies them to model data and solve problems.
124.1.3	Graphs and Functions	The graduate analyzes and interprets functions using multiple representations.
124.1.4	Polynomial and Rational Functions	The graduate solves polynomial and rational functions and applies them to model data and solve problems.
124.1.5	Exponential and Logarithmic Functions	The graduate solves exponential and logarithmic functions and applies them to model data and solve problems.
124.1.6	Systems of Linear Equations	The graduate analyzes and solves systems of linear equations.
209.1.1	Discrete Mathematics	The graduate applies the fundamental ideas of discrete mathematics including logic, set theory, and graph theory in formulating and solving problems.
214.1.1	Summarizing Data	The graduate evaluates categorical and quantitative data using appropriate numerical measures and graphical displays.
214.1.2	Examining Relationships	The graduate evaluates the relationship between two variables through the creation and interpretation of numerical summaries and visual displays.
214.1.6	Determining Probability	The graduate determines the probability of events using simulations, diagrams, and probability rules.
218.1.2	Properties and Relationships	The graduate applies synthetic and analytic methods to construct proofs and solves problems involving the properties and relationships of two-dimensional objects.
218.1.4	Measurements	The graduate applies measurement formulas and techniques to analyze geometric relationships and solve problems.



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218.1.5

Visualization

The graduate uses visualization and spatial reasoning to analyze the characteristics and properties of three-dimensional objects.