

**Certification Examinations for Oklahoma Educators (CEOE)
Framework Development Correlation Table**

The Framework Development Correlation Table provides information about possible alignment of some of the knowledge and skills contained within the CEOE framework for a test field with other conceptualizations of the knowledge and skills of a field. It was produced using Oklahoma and educator association standards documents that were publicly available at the time of framework development. In the preparation of the Correlation Table, the alignment of a CEOE test competency with standards documents was indicated if the content of a standard was covered, in whole or in part, by the CEOE test competency. For some CEOE test competencies, multiple standards from Oklahoma, or other documents were aligned with the content of a CEOE test competency. An indication of alignment in the Correlation Table does not necessarily imply complete congruence of the content of a CEOE test competency with the standard.

Matrix Showing Match between NCATE Curriculum Guidelines for Secondary Mathematics and CEOE Competencies

NCTM Standards	OK Full Subject Matter Early Childhood Competencies	CEOE	Subarea	Competency
1. Knowledge of Mathematical Problem Solving	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0016, 0018, 0019, 0020, 0021, 0022
2. Knowledge of Reasoning and Proof	5, 7, 8	OSAT: Adv Mathematics	I III	0002 0012
3. Knowledge of Mathematical Communication	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I II III IV	0003 0007, 0008, 0009, 0010 0011, 0012, 0014 0017, 0018, 0019

			V	0021
4. Knowledge of Mathematical Connections	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I II III IV V	0001, 003 0007, 0008, 0009, 0010 0012, 0013, 0014 0015, 0016, 0017, 0018, 0019 0020, 0021
5. Knowledge of Mathematical Representation	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I II III IV V	0003 0007, 0008, 0009, 0010 0014 0015, 0016, 0018, 0019 0020, 0021, 0022
6. Knowledge of Technology	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I II III IV V	0001 0007, 0008, 0009, 0010 0012, 0013, 0016 0015, 0016, 0017, 0018, 0019 0020, 0021
9. Knowledge of Number and Operation	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001, 0004

			II	0006, 0008
			III	0014
10. Knowledge of Different Perspectives on Algebra	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001
			II	0005, 0006, 0007, 0008, 0009, 0010
			IV	0015, 0016
11. Knowledge of Geometrics	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001
			III	0012, 0013, 0014
12. Knowledge of Calculus	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001
			IV	0017, 0018, 0019
13. Knowledge of Discrete Mathematics	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001
			V	0020, 0022
14. Knowledge of Data Analysis, Statistics, and Probability	5, 6, 7, 8, 9	OSAT: Adv Mathematics	I	0001, 0002
			V	0020, 0021
15. Knowledge of Measurement	5, 6, 8, 9	OSAT: Adv Mathematics	I	0001
			III	0011

OSAT: Advanced Mathematics

Subareas: I – Mathematical Processes and Number Sense

0001 Understand the mathematical problem solving & the connections between and among the field of mathematics and other disciplines

0002 Understand the principles and processes of mathematical reasoning

0003 Understand and communicate mathematical concepts an symbols

0004 Understand number theory and the principles and properties of the real and complex number systems

II – Relations, Function, and Algebra

0005 Understand the principles and properties of algebraic relations and functions

0006 Understand the principles and properties of linear algebra

0007 Understand the properties of linear functions and relations

0008 Understand the properties of quadratic and higher-order polynomial relations and functions

0009 Understand the principles and properties of rational, radical, piecewise, and absolute value functions

0010 Understand the principles and properties of exponential and logarithmic functions

III – Measurement and Geometry

0011 Understand principles and procedures related to measurement

0012 Understand the principles and properties of Euclidean geometry in two and three dimensions

0013 Understand the principles and properties of coordinate geometry

0014 Understand the principles and properties of vector and transformational geometries

IV – Trigonometry and Calculus

0015 Understand the principles and properties of and relationships involving trigonometric functions and their graphic representations

0016 Understand and apply the principles and techniques of trigonometry to model and solve problems

0017 Understand the principles and properties of limits, continuity, and average rates of change

0018 Understand and apply the principles and techniques of differential calculus

0019 Understand and apply the principles and techniques of integral calculus

V – Probability, Statistics, and discrete Mathematics

0020 Understand the principles, properties, and techniques of probability

0021 Understand the principles, properties, and techniques of statistics

0022 Understand the principles of discrete mathematics