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 Earth/Space Science and CEOE Competencies

	NCATE Curriculum Guidelines		CEOE Competencies
4.1	Provide all students with a holistic, interdisciplinary understanding of science, as well as to:		
	a. Relate science to contemporary events, research results, and the students' daily lives.	0001 0002	Connections among mathematics, science, and technology Historical context of earth sciences and
			everyday life
	b. Provide students with information about career opportunities in science and technology.	0002	Historical context of earth sciences and the application of earth sciences to everyday life
4.2	Fulfill the professional and legal obligations of science teaching.	0010	(OPTE) Effects of teacher choices and actions on students, parents, and professionals, the modification of these actions, and promotion of continued professional growth
		0011	(OPTE) Comprehension of the "Oklahoma Criteria for Effective Teaching Performance" and its incorporation into instructional strategies
		0013	(OPTE) Legal aspects of teaching, including student and family rights and teacher rights and responsibilities
4.3	Establish and maintain safety in	0007	Proper use of equipment, materials, and

NCATE Curriculum Guidelines		CEOE Competencies	
	classroom, field and storage areas.	procedures in earth science	
4.4	Use a variety of instructional strategies, science curricula and community resources, as well as to:		
	a. Adapt instruction to the needs of wide range of learner abilities, backgrounds and goals.	0002 (OPTE) Differing student approaches to learning and instructional opportunities that are adaptable to individual differences	
	b. Plan instruction based on the prior knowledge and conceptualizations of the students.	0005 (OPTE) Application of curriculum goals, the educational process, subject matter, student ability, and the community to instruction, and adaptation of instruction based on assessment and reflection	
		0006 (OPTE) Curriculum integration and instructional strategies to encourage student critical thinking, problem solving, and performance and technological skills	
	c. Use electronic educational technology, including computers, interactive video, telecommunications and others.	 0001 Connections among mathematics, science, and technology 0007 (OPTE) Effective communication techniques fostering classroom inquiry collaboration, and supportive interaction 	
4.5	Design and implement laboratory and field-based learning activities which will:	0003 The process of scientific inquiry and experimentation 0004 Processes of collecting and organizing scientific data in the investigation of earth sciences	
	a. Foster the development of student research skills in the laboratory and field.	 0003 The process of scientific inquiry and experimentation 0004 Processes of collecting and organizing scientific data in the investigation of earth sciences 	
	b. Apply basic statistical methods and processes of data analysis to interpret	0004 Processes of collecting and organizing scientific data in the investigation of	

NCATE Curriculum Guidelines		CEOE Competencies	
	scientific phenomena.		earth sciences
4.6	Foster the development of decision- making and value-analysis skills needed	0001	Connections among mathematics, science, and technology
	involving scientific, technological, societal and individual human issues and cultural values.	0002	Historical context of earth sciences and the application of earth sciences to everyday life
		0005	Natural resources, the effects of human activities on the environment, and the preservation of the earth's ecosystems
		0018	Impact of human activity on the atmosphere and climate
4.7	Use techniques for assessing student outcomes which are aligned with instruction and consistent with contemporary assessment goals.	0005	(OPTE) Application of curriculum goals, the educational process, subject matter, student ability, and the community to instruction, and adaptation of instruction based on assessment and reflection
		0008	(OPTE) Assessment strategies to evaluate and modify the teaching/learning process
4.8	Apply contemporary research findings to the teaching and learning of science.	0006	(OPTE) Curriculum integration and instructional strategies to encourage student critical thinking, problem solving, and performance and technological skills
		0010	(OPTE) Effects of teacher choices and actions on students, parents, and professionals, the modification of these actions, and promotion of continued professional growth
4.9	Use effective classroom management techniques to establish and maintain an environment conducive to learning science.	0001	(OPTE) Student learning and development and learning opportunities that support student intellectual, social, and physical development at all grade levels
		0002	(OPTE) Differing student approaches to learning and instructional opportunities that are adaptable to

NCATE Currice	ulum Guidelines		CEOE Competencies
			individual differences
		0003	(OPTE) Application of motivational and behavioral practices to create positive learning environments
		0004	(OPTE) Comprehension of lifelong learning, making learning enjoyable, and the willingness to change to promote student learning and development (OPTE)
		0005	(OPTE) Application of curriculum goals, the educational process, subject matter, student ability, and the community to instruction, and adaptation of instruction based on assessment and reflection
		0006	(OPTE) Curriculum integration and instructional strategies to encourage student critical thinking, problem solving, and performance and technological skills
		0007	(OPTE) Effective communication techniques fostering classroom inquiry, collaboration, and supportive interaction
7.1 Understand and de concepts and princ sciences, including	Understand and develop the major concepts and principles of the earth/space sciences, including astronomy, geology, meteorology, oceanography and natural resources.	0005	Natural resources, the effects of human activities on the environment, and the preservation of the earth's ecosystems
resources.		0008	Structure and features of the earth, moon, and sun, and the role of technology and exploration in their study
		0009	Interactions among the earth, moon, and sun
		0010	Organization of the solar system, characteristics of celestial bodies, and models describing their relationships and motion
		0011	Motions, life cycles, and methods of study of the stars

NCATE Curriculum Guidelines		CEOE Competencies
	0012	Size, structure, and motions of the solar system, Milky Way, and universe
	0013	Composition and properties of the earth's atmosphere, and mechanisms of energy transfer
	0014	Properties of water and atmospheric phase changes, energy relationships among phase changes, clouds and precipitation
	0015	Characteristics of weather systems, methods and instruments for collecting meteorological data
	0016	Principles and technology of weather forecasting and the impact of weather on humans
	0017	Characteristics of major climatic zones and the relationship between weather and climate
	0018	Impact of human activity on the atmosphere and climate
	0019	Processes of mineral and rock formation, characteristics and classification of minerals and rocks
	0020	Structure of the earth, crustal movements, and other forces which shaped the earth's surface
	0021	Action of erosional-depositional processes in changing the earth's surface
	0022	Geologic history of the earth and the major geologic time divisions
	0023	The hydrologic system and its effects on local water budgets
	0024	Processes by which water moves on and beneath the earth's surface
	0025	Structure, composition, and properties

NCATE Curriculum Guidelines		CEOE Competencies	
			of the earth's oceans
7.2	Develop student understanding of the interconnectedness of the sciences, and relate the major concepts of biology, chemistry and physics to the teaching of the earth/space sciences.	0001	Connections among science, mathematics and technology
		0002	Historical context of earth sciences and the application of earth sciences to everyday life
7.3	Apply mathematics, including statistics and precalculus, to investigations in the earth/space sciences and the analysis of data.	0004	Processes of collecting and organizing scientific data in the investigation of earth sciences
		0006	Creation, use, and interpretation of models used in earth science
7.4	Relate the concepts of the earth/space sciences to contemporary, historical, technological and societal issues.	0001	Connections among science, mathematics and technology
		0002	Historical context of earth sciences and the application of earth sciences to everyday life
		0003	The process of scientific inquiry and experimentation
		0005	Natural resources, the effects of human activities on the environment, and the preservation of the earth's ecosystems
7.5	Locate resources, design and conduct inquiry-based, open-ended investigations in the earth/space sciences, interpret findings, communicate results and make judgments based on evidence.	0003	The process of scientific inquiry and experimentation
		0004	Processes of collecting and organizing scientific data in the investigation of earth sciences
		0006	Creation, use, and interpretation of models used in earth science
		0007	Proper use of equipment, materials, and procedures in earth science