

# Texas Educator Certification Examination Program

## Field 370: Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12

### Examination Framework

January 2020

<b>Domain</b>	<b>Range of Competencies</b>
I. Instructional Planning, Delivery, and Assessment	001–003
II. Knowledge of Students and Student Learning	004–005
III. The Learning Environment	006–007
IV. Professional Practices and Responsibilities	008–009
V. Constructed Response	010

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**DOMAIN I—INSTRUCTIONAL PLANNING, DELIVERY, AND ASSESSMENT**

**Competency 001 (Instruction):** *Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.*

For example:

- A. Demonstrate knowledge of pedagogical practices and contextual factors, such as industry environments, standards, and practices, that affect student learning.
- B. Apply knowledge of how to develop instructional goals and objectives that are clear, relevant, and aligned with industry and state standards.
- C. Recognize ways to develop and organize the curriculum to facilitate student understanding of key content knowledge and skills of the discipline.
- D. Apply knowledge of instructional planning that is developmentally appropriate, that is standards driven, and that will motivate students to learn.
- E. Apply strategies for encouraging student engagement through direct instruction, facilitated discussion, and student-centered activities.
- F. Demonstrate knowledge of how to use communication techniques to provide ongoing, appropriate, and constructive feedback to students to reinforce learning and promote understanding of key concepts.
- G. Apply knowledge of methods for communicating goals, objectives, and learning expectations to support all students in reaching high levels of achievement.
- H. Apply knowledge of instructional strategies for designing lessons, including differentiated instruction, to meet the needs of diverse learners (e.g., acceleration, remediation, implementation of Individualized Education Programs [IEPs]).

**Competency 002 (Resources, Technologies, and Materials):** *Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.*

For example:

- A. Apply strategies for identifying, developing, and using resources and materials to prepare and present developmentally appropriate instruction that is responsive to the needs of all students.
- B. Apply strategies for selecting and using resources, technologies, and instructional materials that reflect educational goals and actively engage all students.
- C. Recognize variations in students' ability to access and use technology resources, and adapt instruction to facilitate all students' use of appropriate resources to enhance learning.
- D. Apply knowledge of digital citizenship, including technology-related laws, issues, and ethics (e.g., copyrights, Internet safety, plagiarism, computer-use guidelines).
- E. Apply knowledge of ways to integrate the use of oral, written, graphic, kinesthetic, and/or tactile resources and materials to teach key concepts.

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**Competency 003 (Data-Driven Practices and Student Assessments):** *Understand how to collect, analyze, evaluate, and communicate data and how to design and implement appropriate and effective student assessments.*

For example:

- A. Demonstrate knowledge of strategies for collecting, analyzing, and evaluating data in a timely, thorough, accurate, and appropriate manner to monitor student learning.
- B. Apply strategies for collecting, analyzing, and evaluating multiple sources of data, including student assessments, to develop a coherent evaluation of the trade and industrial workforce training program's strengths and weaknesses, instructional strategies, and content delivery.
- C. Demonstrate knowledge of the characteristics and uses of formal and informal assessments, including cognitive and performance-based assessments, to analyze students' strengths and needs, measure and evaluate student progress, and adjust instructional strategies and content delivery.
- D. Apply strategies for providing students with timely, constructive feedback; cooperating effectively with teachers, other professionals, and parents/guardians to collect and interpret data; and communicating the purposes, methods, findings, and implications of students' assessment results.
- E. Apply principles and standards for developing individualized training plans for student work-based learning experiences, and apply methods for evaluating student performance and the value of particular experiences to student learning.

**DOMAIN II—KNOWLEDGE OF STUDENTS AND STUDENT LEARNING**

**Competency 004 (Learning Processes):** *Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.*

For example:

- A. Demonstrate knowledge of theories of how learning occurs and processes by which learners acquire knowledge and skills (e.g., constructivism, behaviorism, hierarchy of needs, social learning).
- B. Demonstrate knowledge of physical, cognitive, social, and emotional factors of human development and their significance for teaching and learning.
- C. Recognize the wide range of individual development and the implications of developmental variation for instructional planning.
- D. Recognize challenges for adolescents, both in and out of school, and effective resources to help students address challenges.
- E. Apply strategies for communicating effectively with students to enhance their self-esteem and achieve personal goals.

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**Competency 005 (Student Learning):** *Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.*

For example:

- A. Demonstrate knowledge of the ethnic, cultural, linguistic, gender, gender identity, and socioeconomic diversity of students and the effects of this diversity on student learning.
- B. Apply strategies for developing and adapting lesson plans and instruction that are responsive to students' diverse backgrounds and particular needs, including the needs of English learners.
- C. Recognize the importance of modeling acceptance of and respect for all students.
- D. Apply strategies for developing lesson plans and instruction that meaningfully relate to students' prior knowledge, life experiences, and interests.
- E. Apply strategies for ensuring equitable access to educational opportunities and experiences for all students, including students with disabilities.
- F. Demonstrate knowledge of different types of work-based learning experiences (e.g., mentorships, job shadowing, internships, apprenticeships, practicum) and the characteristics, advantages, and disadvantages of each.

**DOMAIN III—THE LEARNING ENVIRONMENT**

**Competency 006 (Organized, Productive Learning Environment):** *Understand the development and implementation of strategies for creating a well-organized and productive learning environment.*

For example:

- A. Demonstrate understanding of ways to implement efficient and effective routines and procedures that promote students' learning and achievement.
- B. Apply knowledge of strategies to organize classroom and laboratory activities and schedules to enhance the efficiency of teaching and learning.
- C. Apply knowledge of strategies for maintaining a learning environment that is based on high expectations for student performance and empowers students to take responsibility for their own learning.
- D. Apply strategies for maximizing time spent on instruction (e.g., managing time, facilitating transitions).
- E. Apply principles for planning, managing, and facilitating classroom and laboratory organization in order to maximize students' collaboration, participation, and achievement.

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**Competency 007 (Safe, Supportive Learning Environment):** *Understand principles and strategies for maintaining a physically and emotionally safe, supportive learning environment that maximizes student learning.*

For example:

- A. Apply knowledge of strategies for creating an inclusive learning environment in which diversity and individual differences are respected and classroom interactions are positive and respectful.
- B. Demonstrate knowledge of how to facilitate positive and productive interactions with and among students in small or large groups.
- C. Apply strategies for arranging and organizing the physical environment to maximize student learning and to ensure that all students have access to resources.
- D. Apply knowledge of relevant local, state, and federal safety regulations and current practices and procedures for ensuring the safety of students in the classroom, laboratory, field, and workplace settings.
- E. Demonstrate knowledge of principles and characteristics of effective behavior management systems and strategies for maintaining an environment where all students can learn.
- F. Recognize potential hazards, threats, and vulnerabilities (e.g., mechanical, chemical, human, natural) and ways to prevent or mitigate them.

**DOMAIN IV—PROFESSIONAL PRACTICES AND RESPONSIBILITIES**

**Competency 008 (Ethics and Integrity):** *Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.*

For example:

- A. Apply self-assessment procedures to identify strengths and areas for growth in order to maintain high standards in quality of instruction, interactions with students and others, and personal development.
- B. Demonstrate understanding of ethical guidelines, policies, and procedures for educators in Texas as outlined in the Code of Ethics and Standard Practices for Texas Educators.
- C. Demonstrate knowledge of ways to apply campus and school district policies and procedures.
- D. Identify and apply legal requirements for educators (e.g., related to students' and families' rights, student discipline, record keeping, equity, OSHA regulations).
- E. Apply strategies for serving as an advocate for students and modeling ethical behavior for students, families, colleagues, and others.

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**Competency 009 (Professional Practice):** *Apply strategies for collaborating with other professionals, maintaining professional relationships, and fulfilling professional duties.*

For example:

- A. Demonstrate understanding of the importance of participating in program, school, and community activities and performing professional responsibilities and duties outside the classroom setting.
- B. Demonstrate knowledge of the importance of identifying opportunities for and participating in relevant professional development activities and lifelong learning to enhance technical knowledge and pedagogical skills.
- C. Recognize the benefits of maintaining membership and participating in professional organizations (e.g., networking, access to resources, contributing to the profession, obtaining current technical and pedagogical information).
- D. Recognize the importance of establishing partnerships, maintaining relationships, and working effectively with internal and external partners.
- E. Apply knowledge of skills and procedures for organizing and working with advisory committees.
- F. Demonstrate understanding of the purpose and benefits of student organizations and the roles of advisors to such organizations.

**DOMAIN V—CONSTRUCTED RESPONSE**

**Competency 010 (Constructed Response):** *Apply appropriate pedagogical principles and knowledge of instructional methods to describe components of a lesson designed to achieve a specific learning objective.*

*Note: Examinees' written responses will be scored only on pedagogical content knowledge. Written responses may be presented in any format that clearly communicates pedagogical content knowledge (e.g., essay, bullet points, outline).*

For example:

- A. Identify one learning objective related to a field within trade and industrial workforce training, including a logical rationale for selecting the particular learning objective.
- B. Use appropriate pedagogical principles and effective instructional methods to describe an approach for promoting students' achievement of the learning objective.
- C. Describe instructional strategies for connecting students' prior knowledge, life experiences, and interests to the learning objective.
- D. Identify potential safety issues and discuss methods for securing student safety during instruction.
- E. Describe how instruction will be accessible to all students, including those with special needs.
- F. Describe appropriate assessment methods for evaluating student performance and achievement of the learning objective.