Crosswalk: Previous versus New Technology Standards

General Information about this Revision:

» The term "Engineering" will be added to the licensure name in a future Regulations change. The primary reasons for the addition are to better align with the national organization from which our standards are derived. The International Technology & Engineering Educator's Association (ITEEA) adopted the term Engineering to reflect an alignment with STEM (Science, Technology Engineering & Mathematics), noting we are the Technology & Engineering in STEM, providing an avenue for the application of mathematic and scientific principles.

» A major revision to be noted is moving from four licensure areas (Technology Education – 7 standards, Production Technology – 3 standards, Communication Technology – 3 standards, and Power/Energy & Transportation technology – 3 standards) to a single licensure of Technology & Engineering Education with 8 standards.

» Providing a single license reduces redundancy and streamlines the license to reflect the goal of technology and engineering education which is to promote technological literacy to all students.

» The new license while retaining some of the same content knowledge and professional skills based on the International Technology and Engineering Educator's Association's Standards for Technological Literacy, is formatted dramatically different. For this reason, the previous standards will not be listed in the left column to avoid confusion. However, an explanation will be provided in the column title "What Changed?".

» The licensure areas of production, communication, and power/energy & transportation were migrated to Technology & Engineering Education standards 4,5 and 6 to provide more content knowledge and professional skills to those areas within the Technology & Engineering Education License.

» The previous technology education license standards 1 and 2 were combined in new standard 1, previous standards 3 and 4 were combined into new standard 2, previous technology education license standards 4 and portions of 5 were combined into new standard 3.

» Previous technology education standards 6 and 7 were moved to new standards 7 & 8. Content and knowledge indicators were selectively moved to better align with the new standards and functions as necessary.

Standard [1]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Technology Education License Standard #1: The teacher of technology education demonstrates an understanding of the nature of technology. Standard #2: The teacher of technology education demonstrates an understanding of technology and society.	**Content Knowledge. The teacher of technology and engineering education demonstrates an understanding of the nature of technology and its relationship to society.**	Content standards 1 and 2 from the previous Technology Education licensure were combined into this standard. Combined previous Standard #1 (Knowledge #1-#5; Performance #1-5) and Previous Standard #2 The standard was divided into two functions to accommodate the merging of standards 1 and 2. Wording was changed to reflect the term engineering. Indicators were reworded or combined to reduce redundancy. Knowledge indicators were reduced from ten indicators to eight, performance indicators were reduced from eight to seven.

Standard [2]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Technology Education License Standard #3: The teacher of technology education demonstrates an understanding of design. Standard #4: The teacher of technology education demonstrates an understanding of the abilities needed in a technological world.	**Content Knowledge: The teacher of technology and engineering education demonstrates an understanding of design, engineering, and problem solving.**	Content standards 3 and 4 from the previous Technology Education licensure were combined into this standard. *Combined previous Standard #3 (Knowledge #1-#3; Performance #1-8) and part of previous Standard #2 – K#1 and P#1-5.* Wording was changed to reflect engineering. Indicators were reworded or combined to reduce redundancy. Knowledge indicators were reduced from eleven indicators to eight, performance indicators were reduced from thirteen to seven.

Standard [3]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Technology Education License Standard #4: The teacher of technology education demonstrates an understanding of design. Standard #5: The teacher of technology education demonstrates an understanding of the designed world.	**Content Knowledge: The teacher of technology and engineering education demonstrates an understanding of the systems of the designed world, the knowledge and skills needed in a technological world, and the career fields associated with it.**	Combined parts of previous Technology Education licensure standard #4 Knowledge #2-3 and Performance #6-9 and part of previous Standard #5 Knowledge 1-7 & Performance 1-8, as well as content from SCANS/Career information. Wording was changed to reflect engineering. Indicators were reworded or combined to reduce redundancy and excessive verbiage. Knowledge indicators were reduced from eleven indicators to eight, performance indicators were reduced from thirteen to seven. •

Standard [4]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Power/Energy/Transportation Technology License Standard 1: The teacher of power/energy/transportation technology	**Content Knowledge. The teacher of technology and engineering education demonstrates an understanding of knowledge and applications of major**	This is a new standard. Combined previous P/E/T Licensure Standard # 1 Knowledge #1-6 and Performance #1-9 Performance #1-6 and Old P/E/T Standard #2 Knowledge 1-7 & Performance 1-6. Previous P/E/T Standard #3 was moved

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
demonstrates abilities needed in a technological world and an in-depth knowledge and application of major concepts, principles, theories and systems–inputs, processes, outputs and feedback associated with power/energy/transportation technology. Standard 2: The teacher of power/energy/transportation technology demonstrates an understanding of laboratory procedures and skills related to power/energy/transportation technology.	**concepts, principles, theories, and systems associated with energy, power, and transportation technologies.**	to New Standard 8. Wording was changed to reflect engineering. Indicators were reworded or combined to reduce redundancy and excessive verbiage. Knowledge indicators were reduced from eleven indicators to eight, performance indicators were reduced from thirteen to seven.

Standard [5]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Communication Technology License Standard 1: The teacher of communication technology demonstrates abilities needed in a technological world and an in-depth knowledge of communication technology, including application of major concepts, principles, theories, and systems–inputs, processes, outputs, and feedback. Standard 2: The teacher of communication technology demonstrates an understanding of laboratory procedures and skills related to communication technology.	**Content Knowledge. The teacher of technology and engineering education demonstrates an understanding of knowledge and applications of major concepts, principles, theories, and systems associated with information and communication technologies.**	This is a new standard. Combined previous Communication licensure Standard # 1 Knowledge #1-6 and Performance #1-6 and previous Communication Standard #2 Knowledge 1-5 & Performance 1-5. Previous P/E/T Standard #3 was moved to New Standard 8. Wording was changed to reflect engineering. Indicators were reworded or combined to reduce redundancy and excessive verbiage. Knowledge indicators were reduced from thirteen indicators to twelve, performance indicators were reduced from ten to three.

Standard [6]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Production Technology License Standard 1: The teacher of production technology demonstrates abilities needed in a technological world and an in-depth	**Content Knowledge: The teacher of technology and engineering education demonstrates an understanding of knowledge and applications of major concepts, principles, theories, and systems associated with production**	This is a new standard. Combined previous Production licensure Standard # 1 Knowledge #1-7 and Performance #1-7 and previous Production licensure Standard #2 Knowledge 1-7 & Performance 1-5. Previous Production Standard #3 was moved to New Standard 8.

knowledge of production technology, including application of major concepts, principles, theories, and systems– inputs, processes, outputs, and feedback.

Standard 2: The teacher of production technology demonstrates an understanding of laboratory procedures and skills related to production technology. | **technologies (manufacturing and construction).** | Wording was changed to reflect engineering. Indicators were reworded or combined to reduce redundancy and excessive verbiage. Knowledge indicators were reduced from twenty-three indicators to twenty, performance indicators were reduced from twenty-two to ten. |

Standard [7]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Technology Education Licensure

Standard 6: The teacher of technology education demonstrates an understanding of organization, maintenance and management, safety and laboratory practices associated with teaching technology education. | **Instructional Practice. The teacher of technology and engineering education demonstrates an understanding of organization, maintenance and management, safety and laboratory practices associated with teaching technology and engineering education.** | This is a new standard and was previously Standard #6 in the Technology Education License but includes portions of old Technology Education License standards 6 & 7. Safety, facility organization and management, maintenance and lab practices were addressed within the standard. Indicator 7.1.4 professional skills was added and indicates the need to establish facilities which can handle multidisciplinary, project-based and STEM related activities.
The new standard contains one function with six content indicators and four professional skills indicators. |

Standard [8]

PREVIOUS STANDARDS	NEW STANDARDS	WHAT CHANGED?
Technology Education License

Standard 7: The teacher of technology education demonstrates an understanding of the technology education profession and its curriculum and instructional practices.

Power/Energy/Transportation Technology License

Standard 3: The teacher of power/ energy/transportation technology demonstrates an understanding of the | **Professional Responsibility: The teacher of technology and engineering education demonstrates an understanding of the profession, its curriculum, instructional practices for individual learners and learning, and college and career readiness practices for students.** | This is a new standard and was previously Standard #7 in the Technology Education License but includes portions of old Technology Education License standards 6 & 7. The standard was divided into four functions to include understanding the technology & engineering education profession, curriculum and instructional practices, as well as an understanding of college and career readiness practices.
The new standard contains four functions with 11 content knowledge indicators and six content indicators and 14 professional skills indicators. Included were indicators relating to the promotion of Technology and Engineering Education, the historical evolution of the field as well as providing "real |

professional knowledge and teaching skills specific to power/energy/transportation technology.

Communication Technology License

Standard 3: The teacher of communication technology demonstrates an understanding of the professional knowledge and teaching skills specific to communication technology.

 Production Technology License

Standard 3: The teacher of production technology demonstrates an understanding of the professional knowledge and teaching skills specific to production technology.

world" learning opportunities for discovering students' talents, aptitudes interest and potentials relating to technology-based careers.