

# **Guidelines for Texas Skill Standards Based Program Recognition**

**Texas Workforce Investment Council**  
**1100 San Jacinto Boulevard, Suite 1.100**  
**Austin, Texas 78701**  
**(512) 936 8100**  
**[www.gov.texas.gov/twic](http://www.gov.texas.gov/twic)**

**Publication Date: December 2015**

**Publication Date:** Amended December 2015

**Tenth Edition**

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**Published by the Texas Workforce Investment Council  
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## **PREFACE**

### **About These Guidelines**

*Guidelines for Texas Skill Standards Based Program Recognition* is designed for community and technical colleges interested in using skill standards in their workforce education programs. These *Guidelines* provide policies and guidance regarding the usage of skill standards in Texas for curriculum development, assessment and certification of workforce skills. The use of skill standards is not endorsed for purposes other than education, training and career information.

Using skill standards as a starting point to derive a credential that specifies to an employer what skills and knowledge an individual has attained involves a three-step process: 1) translating skill standards into curriculum; 2) assessing individuals' knowledge and skill level acquisition; and 3) documenting that skill attainment. These *Guidelines* do not prescribe a particular way to accomplish this objective; rather, this document presents options and references for conducting this process.

### **About the Texas Workforce Investment Council**

*Guidelines for Texas Skill Standards Based Program Recognition* is published by the Texas Workforce Investment Council (TWIC). The TWIC was established by the Texas Legislature in 1993 to assist the governor and the legislature with strategic planning for and evaluation of the Texas workforce system. It is composed of 19 members representing business, labor, education, community-based organizations, and five state agency partners. In 2015, the Texas Skill Standards Board was abolished and its powers and duties assigned to the TWIC. The TWIC was assigned with maintaining a statewide system of industry-defined and industry-recognized skill standards for sub-baccalaureate occupations with strong employment and earnings opportunities. The ultimate goal of the Texas skill standards system is to assist the growth of the Texas economy through the recognition of skill standards and skill attainment to support workforce development efforts.

### **To Reach the TWIC**

On the Web: [www.gov.texas.gov/twic](http://www.gov.texas.gov/twic)

By Email: [twic@gov.texas.gov](mailto:twic@gov.texas.gov)

By Phone: 512/936-8100

By Fax: 512/936-8118

By Mail: Texas Workforce Investment Council  
1100 San Jacinto Boulevard, Suite 1.100  
Austin, Texas 78701

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|   |          |
|---|----------|
| <b>INTRODUCTION</b>   | <b>1</b> |
| <b>Development and Recognition of Skill Standards</b>                         | <b>1</b> |
| <b>Facilitation of Skill Standards Usage</b>                                  | <b>1</b> |
| <b>Purpose and Scope of Guidelines</b>  | <b>1</b> |
| <b>Relationship with Existing Occupational Certification Systems</b>          | <b>1</b> |
| Credential Granting Educational Institutions                                  |          |
| Licensure or Regulation   |          |
| Third-Party, Industry-Based Certifications                                    |          |
| <b>POLICIES AND GUIDANCE</b>  | <b>3</b> |
| <b>Usage of Skill Standards to Guide Curriculum Development</b>               | <b>3</b> |
| Skill Standards-to-Curricula Linkages   |          |
| Linking with Third-Party Assessment Systems                                   |          |
| <b>Assessment</b>   | <b>5</b> |
| Texas Approach and Scope  |          |
| Linking with Third-Party Assessment Systems                                   |          |
| <b>Skill Attainment Documentation</b>   | <b>6</b> |
| Levels of Credentials   |          |
| <b>Program Recognition</b>  | <b>6</b> |
| Policy Intent   |          |
| Program Recognition Criteria  |          |
| Application Types   |          |
| Renewal Criteria and Process  |          |
| Subsequent Renewals   |          |
| Rules and Requirements Governing Changes Prior to Program Recognition Renewal |          |

## **INTRODUCTION**

The Texas Workforce Investment Council (TWIC) assists the governor and the legislature with strategic planning for and evaluation of the Texas workforce system. In 2015, the Texas Skill Standards Board was abolished and its duty to maintain a statewide system of industry-defined skill standards was assigned to the TWIC. In that role, the TWIC is charged with two major functions.

### **Development and Recognition of Skill Standards**

The first function is to facilitate the development and recognition of skill standards by industry groups. Part of this function is to serve as a quality assurance agent for the development process, informing industry groups of the content and procedural validity criteria required for recognition in Texas. The TWIC then evaluates the skill standards against the criteria and grants recognition of the standards (For details on this process, see the companion publication, *Guidelines for the Development, Recognition, and Usage of Skill Standards*).

### **Facilitation of Skill Standards Usage**

The second function is to facilitate dissemination and usage of skill standards. The Legislature intended the skill standards to “guide curriculum development, assessment and certification of workforce skills.” However, the system in Texas is voluntary, with no authority granted to compel the use of skill standards. Thus, the TWIC helps to bridge the gap between industry skill standards and their usage by education and training providers to prepare students and trainees for the workforce in two ways. It provides technical assistance on skill standards usage and promotes the use of standards and credentials among employers. Given that skill standards serve as a communication tool to inform training and education providers of business and industry skill requirements, it is crucial that employers hire graduates of the programs that base their curricula on industry skill standards. Industry will ultimately drive the successful implementation of the skill standards system.

### **Purpose and Scope of Guidelines**

*Guidelines for Texas Skill Standards Based Program Recognition* provides policies and guidance regarding the usage of skill standards in Texas for curriculum development, assessment and certification of workforce skills. These *Guidelines* are designed for community and technical colleges interested in using skill standards in their workforce education programs. As stated in the *Guidelines for Development*, the use of skill standards is not endorsed for purposes other than education, training and career information. These *Guidelines* are limited to providing policies and guidance on the usage of skill standards within the existing public postsecondary workforce education system in Texas.

### **Relationship with Existing Occupational Certification Systems**

Third-party assessment and credentialing systems in the United States perform one or more of the three functions—curriculum development, assessment and certification—referred to in the legislation establishing the Texas skill standards system. These occupational credentialing systems can be divided into three categories:

*Credential granting educational institutions* – Degrees or certificates are awarded by educational institutions for programs of study that teach skills related to specific occupations. Students are awarded the credentials after successfully completing instruction and demonstrating mastery of knowledge through provider-administered assessments.

*Licensure or regulation* – Awarded by government-regulated agencies, a license is required for certain professions before employment begins. Depending on guidelines, relicensing can be required.

*Third-party, industry-based certifications* – A certification is obtained by passing an exam to demonstrate proficiency in a specific trade. Certification standards are developed by national industry organizations with no affiliation to educational institutions. Awards are assessed through independent third-party centers that are sanctioned by national industry organizations, without influence from training programs.

#### *Credential Granting Educational Institutions*

In Texas, the skill standards system, which encompasses sub-baccalaureate occupations, is implemented through public community and technical colleges, which are governed by the Texas Higher Education Coordinating Board (THECB). Colleges choose the courses to comprise their technical education programs from the Workforce Education Course Manual (WECM). The WECM is the approved state inventory of workforce education courses for public two-year colleges in Texas, a resource that allows Texas colleges increased flexibility in responding to business and industry needs. It is designed to contribute to the quality and consistency of learning outcomes in workforce courses across the state.

In occupational areas where industry groups have not come to consensus on skills needed, community and technical colleges have relied on employer advisory committees at the local level and DACUM (Developing a Curriculum) or modified DACUM processes to analyze jobs, breaking them down into tasks required and related skills, to inform curriculum content. Using local employer input into the curriculum development process, college by college, is slower and more expensive than statewide skill standards, and may result in inconsistent standards across the state.

Skill standards, on the other hand, provide an ideal communication tool for statewide industry workforce requirements that colleges may integrate into a common technical core of WECM courses. The recent passage of legislation requiring the THECB to implement programs of study curricula to ensure alignment with industry and academic needs should also facilitate consistent statewide industry standards.

#### *Licensure or Regulation*

In some occupational areas, a legally-constituted licensing body defines the desired competencies and certifies and licenses each individual who wants to enter the occupation. Licensing requirements usually include personal qualifications (such as minimum age, citizenship and/or letters of reference); specialized education and training; and an examination.

State-regulated industries do not fall within the Texas skill standards system. These industries have a vehicle and state authority through which their required occupational competencies are communicated to community and technical colleges. The Texas Higher Education Coordinating Board's *Guidelines for Instructional Programs in Workforce Education* requires that programs with mandatory state, federal or national licensure, certification, or registration prepare their graduates to meet the standards of the appropriate agency or association and take the corresponding examinations(s). These state authorities' competencies and licensure requirements are specified through the learning outcomes<sup>1</sup> of courses in the WECM. Where these types of licensure arrangements exist, the TWIC supports the use of existing professional certification systems for the assessment and documentation of skill attainment.

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<sup>1</sup> The term "learning outcomes" wherever it appears in these *Guidelines for Program Recognition* refers to a formal category or heading in the THECB's WECM. Its meaning is "results," as in the dictionary definition of outcome: a natural result; consequence.

### *Third-Party, Industry-Based Certifications*

In a number of occupational areas, national industry associations or private vendors have voluntarily developed their own skill-based credentialing systems that certify individuals' attainment of required skills. The industries have chosen to establish these systems for a variety of reasons including: anticipating a shortage of skilled workers; recognizing the value of a highly-skilled, credentialed workforce; and/or responding to the possibility of government regulation.

The industry associations may perform any or all of the following functions, depending on the occupational area:

1. prescribing education and experience qualifications for certification candidates;
2. accrediting programs based on qualifications for curriculum, faculty, equipment and facilities, including conducting site visits;
3. performing occupational analyses and establishing the competency requirements that will underlie the certification assessments;
4. developing curriculum related to the competencies and providing technical assistance to educational institutions and training programs desiring to teach to the standards;
5. administering competitive exams for individuals and issuing certificates based on the results.

Such industry associations may submit their competencies or skill standards for recognition for the added value of having colleges integrate them into WECM courses. For those recognized skill standards that already have associated assessment and credentialing systems that are recognized by the industry, the TWIC encourages postsecondary education and training providers to utilize those systems for their program completers. Industry associations play a vital role in assisting colleges to develop curriculum, construct assessments and teach to the standards for which individuals will be tested and certified. Colleges are encouraged to work with industry associations for these purposes.

## **POLICIES AND GUIDANCE**

Skill standards are a tool for communicating employers' workforce requirements to education and training providers. Translating skill standards into education and training programs to prepare a qualified workforce according to the industry specifications consists of three processes:

- Usage of skill standards to guide curriculum development.
- Assessment (measuring individuals' acquisition of skill standards).
- Skill attainment documentation (certification and credentialing).

### **Usage of Skill Standards to Guide Curriculum Development**

Skill standards and workforce education curricula, if designed effectively, should essentially convey the same information. Skill standards, developed by industry groups, state what the worker needs to know and be able to do (knowledge and skills) in the workplace and the level to which the work must be performed to be deemed competent. Curricula, developed by education and training providers, state what learning outcomes (workforce knowledge and skills) the learner must attain and the level to which the learning outcomes must be demonstrated. This similarity allows education and training providers to use skill standards to construct curricula. In fact, there is a direct parallel between the seven Texas skill standards elements and the components of curricula as described on the next page.



### Skill Standards Elements

- Critical Work Function
- Key Activities
- Occupational Skills, Knowledge and Conditions
- Academic and Employability Knowledge and Skills
- Performance Criteria
- Statements of Assessment

### Curricula Components

- Program Structure
- Learning Outcomes
- Workplace Context and Resources/ Equipment
- Sequence and Competencies Integration
- Benchmarks and Assessment
- Methodology and Instruments

#### *Skill Standards-to-Curricula Linkages*

Critical work functions are the principal responsibilities that a worker must perform to meet the key purpose, or essential work-related goal, of an occupational area. Typically, an occupation can be described using 10 to 15 critical work functions. This skill standards element is roughly parallel to the courses that comprise a workforce education program. Thus, critical work functions provide clues as to the potential breakdown of course content within a program of study. A critical work function, depending on its depth and breadth, may comprise one or multiple courses. It is also possible that more than one critical work function could be taught in the same course.

Key activities are the major duties (or clusters of tasks) that workers must perform to accomplish each critical work function. Generally, each critical work function consists of three to six key activities. This element of the skill standards is comparable to learning outcomes in curricula. An education or training provider developing curriculum based on skill standards would expect a learner, by the completion of the program, to demonstrate the successful performance of the key activities.

Occupational skills, knowledge and conditions are the common technical or occupational-specific skills and knowledge and the associated tools, resources and equipment that are critical for carrying out the key activities to the level specified in the performance criteria. This skill standards element enables education and training providers to design the curriculum and the learning experience in the context of the workplace. The conditions are necessary to enable the learner to perform the key activities.

Academic and employability knowledge and skills are the competencies associated with the traditional subject areas of mathematics, science, reading and writing, and the applied, cross-functional skills and knowledge required for effective performance across a range of occupations. Examples of employability knowledge and skills are adaptability; using information and communications technology; listening; speaking; and working in teams. Based on the common nomenclature in the *Guidelines for Development*, there are 17 academic and employability knowledge and skills (AEKS). The TWIC adopted the AEKS common nomenclature and associated rating scales endorsed by the National Skill Standards Board (NSSB).<sup>2</sup> In the skill standards, industry groups identify, for their occupational area, the academic and

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<sup>2</sup> Acknowledgement - Skill Scales Companion Guide

In an effort to facilitate portability of credentials and transferability of individuals' skills, the Texas skill standards elements and format were designed to promote the linkage of state and national skill standards efforts.

As part of the skill standards elements required for recognition, the common nomenclature endorsed by the NSSB was adopted. *The Skill Scales Companion Guide* sets out the seventeen (17) academic and employability knowledge and skills endorsed by the NSSB, and provides scales to determine the levels of

employability knowledge and skills associated with each critical work function. This information can be used by education and training providers to determine what academic and employability knowledge and skills underlie each of the critical work functions and to sequence the teaching of those competencies from course to course across a program.

Performance criteria indicate the type, quality and level of output (demonstrable performance) required to successfully complete each key activity. This skill standards element can be used as the benchmark in assessing students' performance of the key activity, or learning outcome.

Statements of assessments are the industry group's recommendation for the evaluation process that should be used to determine whether the learner meets the competencies specified within each critical work function. A statement of assessment is the guide to appropriate strategies and tools to be used to assess the level of skill attainment in a critical work function. Examples of assessment strategies might include paper-and-pencil or computer-administered tests, simulations, performance-based demonstrations, work samples, portfolios, interviews, etc. The statement of assessment may be broad, or may recommend specific strategies and tools. It may also include information regarding the relative importance of the critical work functions and their associated key activities and performance criteria, in terms of time spent on the job (or in training) and weighted assessment. This skill standards element can be used to design assessments for a program and determine the methodology and instruments to use.

## **Assessment**

Assessment is the process by which an individual's performance is measured or evaluated to determine whether it meets the level of competence specified in the skill standards. Assessment instruments to measure competency include not only written exams but a variety of performance-based and other methods, as indicated above. Assessment makes skill standards meaningful by providing a way to know when individuals have achieved the level of competence specified by industry in the standards.

### *Texas Approach and Scope*

At the state level, there is an existing infrastructure for administering assessments and documenting attainment of skills. In Texas, this infrastructure is the public postsecondary workforce education system, consisting of community and technical colleges. These institutions are already conducting assessments of their program completers. As noted above, the performance criteria and statements of assessment elements enable colleges to develop assessments that authentically measure individuals' attainment of the skills indicated by industry groups in the skill standards.

### *Linking with Third-Party Assessment Systems*

As indicated earlier, for some occupations, industry associations have established separate systems to assess and certify individuals who have been trained for entry into their fields. In certain industries, the certification has become a de facto requirement for employment. In those cases especially, it is important for education and training providers to be aware of and teach to the competencies for which their graduates will be assessed. Some industry associations also accredit education or training programs that teach to the skill standards they have established.

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knowledge and skills required in the world of work. The TWIC acknowledges the use of the academic and employability knowledge and skills, and associated skill scales and companion guide, developed by the NSSB.

The skill scales and companion guide are subject to copyright laws at the time of publication (2000).

## **Skill Attainment Documentation**

### *Levels of Credentials*

In Texas, the scope of the skill standards system is limited to the postsecondary level of education and training. As mandated in its authorizing legislation, the voluntary statewide system of skill standards and credentials shall encompass all major skilled occupations that provide strong employment and earnings opportunities and require less than a baccalaureate degree. In Texas' community and technical college system, the credentials that encompass this range of occupations and are of sufficient length and breadth to encompass the standards content, are the level two certificate and the associate degree.

### **Program Recognition**

As noted throughout these *Guidelines*, both the development and utilization of skill standards is voluntary in Texas. As a market-driven system, implementation of the skill standards and credentials will only succeed with the active participation of employers hiring the graduates of postsecondary education programs that utilize skill standards as the basis of their programs. This feedback loop will reward community and technical colleges that use skill standards by improving their placement statistics and will also provide incentive to those colleges that are not using skill standards.

This supply and demand mechanism will only work if employers are aware of which community and technical colleges have incorporated skill standards into their curricula, assessments and credentials. To help facilitate usage of skill standards, the Texas Legislature charged the TWIC with promoting skill standards among employers. As part of that mission, community and technical college programs that teach and assess students all the skill standards content will be recognized and promoted to employers.

### *Policy Intent*

#### Skill Standards-Based Technical Core

The TWIC, composed of a majority of business and industry members, recognizes the desire of employers to see consistent, industry-defined student outcomes in any given program area, regardless of the college from which they recruit. To achieve that end, program recognition is designed to foster and promote the development of a common, skill standards-based technical core curriculum. The technical core allows both a statewide standard of industry-defined outcomes to be met across colleges, and specialized skill sets required by local or regional employers to be met in additional courses in any individual college's program.

Given this goal, the intent is that the first college to incorporate particular skill standards into its program would apply for "program recognition" (see application type 1). Colleges that subsequently integrate the same skill standards into the same program area would apply for "program replication" (see application type 2).

#### College Collaboration

Where one college has already received program recognition, the technical core curriculum that encompasses the skill standards content is expected to evolve through the collaboration of additional colleges that subsequently seek recognition for the same type of program. Thus, both the college with the original recognized program and institutions that follow are encouraged to collaborate, with the goal of agreement on a technical core that is broadly representative of their college programs. One exception to this practice may be where a critical mass of colleges has agreed on a common technical core that appears to be broadly representative of the program area. In those instances, future colleges may be expected to replicate the core curriculum as it exists.

In applying for program recognition or replication, the technical core is documented on the key activities-to-courses matrix. The matrix reflects the courses in which the colleges have agreed, at a minimum, to assess the key activities as significant (summative or terminal, when appropriate) learning outcomes. A college may also assess the key activities in additional courses. However, the matrix indicates the consensus across the colleges as to the technical core courses in which they will teach and assess the key activities to the performance criteria, or where appropriate, depending on the specific skill standards, the related knowledge and skills.

#### *Program Recognition Criteria*

To receive recognition for a workforce education program, community and technical colleges must meet the following criteria:

- Incorporate all elements of the skill standards into the curriculum or program.
- Teach the key activities defined in the standards as learning outcomes in the program, and assess students' performance on the basis of those activities and related performance criteria, skills, and knowledge.
- Complete, submit, and receive approval for, its application for program recognition, which consists of the following documentation:
  - ▶ Notification of intent to apply for program recognition
  - ▶ Application cover page
  - ▶ Key activities-to-courses matrix – indicating in which courses the key activities will be taught as learning outcomes.
  - ▶ Syllabi for each course in the matrix listing the key activities as learning outcomes.
  - ▶ Signed statement of assurances indicating the college's willingness to collaborate with other colleges on a skill standards-based technical core curriculum for the program area.

#### *Application Types*

Colleges may apply for program recognition in one of the following ways:

- 1) Recognition – As the initial college, incorporate skill standards into its program; OR
- 2) Replication – Offer the technical core curriculum of a recognized program into which the relevant skill standards already have been incorporated. Under this option, colleges teach and assess the key activities, at a minimum, in the same technical courses as the recognized program.

Once the application is approved, the recognized program is prominently displayed and promoted to Texas employers and industry groups on the Texas skill standards website.

To assist curriculum developers, guidelines and suggestions for incorporating skill standards content into postsecondary workforce education programs are posted in the community and technical colleges section of the Texas skill standards website ([www.tssb.org/community-and-technical-colleges](http://www.tssb.org/community-and-technical-colleges)).

#### *Renewal Criteria and Process*

Program recognition expires three years from the date of recognition, at which time it may be renewed. To renew its program recognition, a college must meet the following criteria:

- Have developed and be using assessments to measure students' mastery of all the key activities (or equivalent element) and related criteria, skills and knowledge incorporated into the curriculum.

- Indicate commitment through a signed statement to continue teaching and assessing the key activities, as documented on the original key activities-to-courses matrix, or revised matrix as needed, to reflect updated or amended skill standards.
- Complete, submit, and receive approval for, its application for program recognition renewal, which consists of the following documentation:
  - ▶ Renewal application cover
  - ▶ Renewal application form
  - ▶ Revised key activities-to-courses matrix – as needed, to reflect changes in the skill standards since the program was originally recognized
  - ▶ Syllabi corresponding to the matrix changes, as needed.
  - ▶ Illustrative examples of at least three assessments, with the agreement that all assessments will be available for review if requested.

#### *Subsequent Renewals*

To be retained, program recognition must be renewed every three years when it is due for expiration. After its initial three-year renewal is approved, a college may submit an abbreviated application for subsequent renewals. That application shall consist of a statement of assurances attesting that the college's assessments evaluate student mastery of the skill standards and that the courses integrated with key activities have not changed since the last renewal. The statement must be signed by a program representative (such as the chair or lead faculty member), the dean overseeing the program, and the college president or vice president of instruction/academic affairs.

If either of the following has occurred since the last renewal, the college also must submit sample assessments:

- Skill standards have been amended or updated, and/or
- Technical core curriculum or its placement of key activities has changed.

#### *Rules and Requirements Governing Changes Prior to Program Recognition Renewal*

##### College Program Revision

If a college formally revises its recognized program, i.e., submits a program revision to the THECB for approval, before the three-year recognition term expires, it must submit either:

- 1) A statement indicating that the placement of key activities in the program's courses is unchanged, as indicated on the matrix submitted with the college's program recognition application;
- 2) A revised matrix showing any changes in the placement of key activities in courses, (e.g., if a course integrated with a key activity has been replaced by another course), and where the key activities will now be taught, plus course syllabi for the changed courses that document the key activities as learning outcomes; OR
- 3) A statement notifying the TWIC that the program is being deactivated or closed.

##### Updated Skill Standards

If skill standards are updated, i.e., the work-oriented elements (critical work functions, key activities and performance criteria) are significantly changed, essentially resulting in new skill standards, before program recognition expires:

- Relevant colleges will be notified of the updated skill standards.
- Affected colleges may choose to renew their program recognition to reflect the changes in the skill standards, but will not be required to.
- When the recognition is due to be renewed, colleges will be required to use the updated skill standards.

#### Expired Skill Standards

If the skill standards expire before a college's program recognition expires:

- Program recognition continues until the expiration date, at which time it is not renewed. The expired skill standards shall remain in the Texas Skill Standards Repository in an archives section until the recognition of all recognized programs integrated with the expired skill standards has also expired.