

Chapter Three: Workforce Education Program Elements

A. Workforce Education Programs: Overview

In keeping with the U.S. Department of Education's [16 Career Clusters](#), the Texas Education Agency's [AchieveTexas](#) career pathways initiative, and the Coordinating Board's [Texas Career Clusters](#) project, a workforce education program consists of a coherent sequence of courses designed to prepare students for employment in a career field. A workforce education program is developed by an institution in close cooperation with business and industry to satisfy a need for timely and effective workforce education. Additionally, many workforce education programs are articulated with secondary schools through dual credit and with four-year college programs to provide students the opportunity for a seamless transition to the next level of education.

Business and industry experts should provide substantial input into the curriculum design of a workforce education program, including profession-specific knowledge, skills, and abilities and general skills as appropriate, such as oral and written communication, mathematics, computer literacy, and industry-related workplace practices.

A workforce education program may lead to a single award (degree or certificate) or offer multiple awards/exit options (degree and/or certificates). Generally, it is recommended that the number and type of awards in a program not exceed the following:

1. one AAS or AAA degree, 60 semester credit hours (SCH);
2. two level one certificates, each between 15-42 SCH;
3. one level two certificate between 30-51 SCH;

In addition, colleges may incorporate enhanced skills certificates (6-12 SCH), continuing education certificates (360-779 contact hours), and advanced technical certificates (16-45 SCH) in a program based on workforce demand. (Awards are described in more detail later in this chapter.)

In some disciplines, a broader array of awards may be warranted. The type and number of awards should provide the building blocks for students to move from basic to more advanced workplace competencies. Ideally, each award should enable students to build toward the associate degree.

A program is usually identified by a four-digit Classification of Instructional Programs (CIP) code while an award is identified by a six-digit CIP code. Generally, as more digits are added to a CIP code, the classification becomes more specific. A two-digit CIP code refers to a broad career field. A four-digit CIP code refers to a career pathway or similar levels of training but possibly in differing occupations. A six-digit CIP code refers to a specific occupation or job title.

For example:	CIP code 50	Visual and Performing Arts
	CIP code 50.04	Design and Applied Arts
	CIP code 50.0402	Commercial and Advertising Art

The Classification of Instructional Programs (CIP) is a federal taxonomy developed by the U.S. Department of Education's [National Center for Education Statistics](http://nces.ed.gov/ipeds/datacenter/nationalcenterforeducationstatistics/) (NCES). The CIP taxonomy is used by state agencies and national associations to establish standard terminology, improve communication, and standardize recordkeeping. A list of CIP codes is available at <http://www.txhighereddata.org/Interactive/CIP/>.

B. Characteristics of Workforce Education Programs

All workforce education programs must contain the following common elements:

1. Program Demand

Using national, state, and local industry-based trends, standards, and labor market information, the institution must document the need for the program in the college's service area.

2. Effective Use of Advisory Committees

Institutions must establish an industry-based advisory committee for each workforce education program. Advisory committees may be organized by career cluster, as long as each program is reviewed, the committee has the necessary expertise, and ample time is allotted for each program. The role of an advisory committee is to 1) help a college document the need for a workforce education program and 2) ensure that the program has adequate resources and a well-designed curriculum to provide students with the knowledge, skills, and abilities essential for employment. The advisory committee is one of the principal means of ensuring meaningful business and industry participation in program creation and revision.

a. Advisory Committee Functions

Advisory committees perform the following functions:

- (1) evaluating the goals and objectives of the program curriculum;
- (2) establishing workplace competencies for the program occupation(s);
- (3) suggesting program revisions as needed;
- (4) evaluating the adequacy of existing college facilities and equipment;
- (5) advising college personnel on the selection and acquisition of new equipment;
- (6) identifying local business and industry leaders who will provide students with external learning experiences, employment, and placement opportunities;
- (7) assisting in the professional development of the faculty;
- (8) assisting in promoting and publicizing the program to the community and to business and industry; and
- (9) representing the needs of students from special populations.

b. Advisory Committee Composition

Advisory committees must be composed of persons who broadly represent the demographics, including ethnic and gender diversity, of the institution's service area as well as the occupational field in all sectors of the business community within the

institution's service area. Members should be well informed about the knowledge, skills, and abilities required for the occupation for which they are providing information and guidance.

Full-time faculty and staff of the college may not be members of the advisory committee, but they may serve in an ex-officio capacity. Part-time faculty who hold full-time positions within the career field may be members of the committee. Faculty and staff of senior institutions with program articulation agreements may be members of the committee.

c. Advisory Committee Meetings/Minutes

Advisory committees of existing programs must meet in person a minimum of one time a year and should have a quorum present. Additionally, committee members should be kept apprised of the program's performance throughout the year.

During the development of new programs, advisory committees must meet in person at least twice and communicate throughout the program development and approval process.

All meetings of an advisory committee must be recorded in official minutes. The minutes must include the following information:

- (1) identification of committee members (name, title, and affiliation);
- (2) indication of committee members' presence or absence from the meeting;
- (3) the names and titles of others present at the meeting;
- (4) the signature of the recorder; and
- (5) evidence that industry partners have taken an active role in making decisions that affect the program as outlined in Section B.2.a above.

Minutes must be maintained by the institution and made available to Coordinating Board staff upon request. See Figure 3.1, Sample Advisory Committee Meeting Record Template, at the end of this chapter.

3. Identification of Program Competencies

Institutions must demonstrate that each award, whether for credit or continuing education, provides the necessary academic skills and the workforce skills, knowledge, and abilities necessary to attain entry-level employment in a target occupation. Program competencies may be developed and documented using one of the processes discussed below or another systematic methodology. The identified program competencies may then be used to select courses toward program development.

- a. Skill standards recognized by the [Texas Skill Standards Board](#) (TSSB) are developed and endorsed by business and industry groups through a statewide job analysis that consists of work functions, key activities, and performance criteria. TSSB-recognized skills standards identify occupational, employability, and academic skills and knowledge for the occupational area. They can be used as curricular learning outcomes and for the development of related student assessments. For a list of

current TSSB-recognized skills standards, see the TSSB's [Texas Skills Standards Repository](#). Information about how skills standards have been incorporated into CTE programs is available on the [TSSB-Recognized Community and Technical College Programs](#) page. Programs recognized by TSSB are intended to be easily adopted by other institutions.

The Coordinating Board encourages institutions to adopt curricula from TSSB and other statewide CTE initiatives developed collaboratively with business and industry.

- b. A Program Competency Profile is a matrix of the knowledge and skills to be mastered by the student upon completion of the award, with a crosswalk from the competencies to the academic and/or workforce courses through which the competencies will be achieved. See Figure 3.2, Sample Program Competency Profile for Small Business Management Certificate, at the end of this chapter.
- c. The Detailed Work Activity (DWA) Curriculum Alignment Process (CAP) is an emerging methodology developed in partnership with the Texas Workforce Commission using O*Net's Content Model. This approach utilizes a common skills language to map learning outcomes to workplace skills resulting in a high-fidelity gap analysis. The process includes an online industry validation survey tool for increased efficiency and objectivity at the skill level. Additional information, an inventory of past program curriculum analysis, and access to tools is available at <http://soa.tstc.edu>.
- d. The DACUM (Developing A Curriculum) process incorporates the use of a panel of experts to identify the major duties and related tasks included in an occupation, along with the necessary knowledge, skills, and traits. The final result is an occupational profile chart describing a job in terms of specific duties and tasks that competent workers must perform. Additional information is available at <http://files.eric.ed.gov/fulltext/ED401483.pdf>.
- e. The Secretary's Commission on Achieving Necessary Skills (SCANS) identifies entry-level workforce skills described in a 1991 Department of Labor report, *What Work Requires of Schools*. The Commission conducted extensive research and interviews with business owners, public employers, union leaders, supervisors, and laborers in a wide variety of work settings. See Figure 3.3, Sample SCANS Matrix Model, at the end of this chapter. Additional information about the report and a list of the identified skills is available at <http://wdr.doleta.gov/SCANS/whatwork/whatwork.pdf>.

Regardless of the method used to identify program competencies, the final program curriculum must adequately address all identified competencies, and the program's courses should ensure that students have the opportunity to master the competencies. The program's advisory committee should take an active role in identifying program competencies and should validate the curriculum's capacity to instill the competencies.

4. Selection of Program Courses

To select program courses, faculty and administrators should refer to the [Workforce Education Course Manual](#) (WECM) and the [Lower Division Academic Course Guide](#)

[Manual](#) (ACGM). These manuals describe established courses and guidelines for the creation of Special Topics, Local Need, and Academic Unique Need courses. See Chapter Four of this document for WECM Guidelines.

a. Choice of Prerequisites

All college-level, non-developmental courses that are required course prerequisites and/or requirements for entry into a degree or certificate must be included in the total hours for the award and must be clearly identified in the proposed curriculum plan. Developmental education course hours must not be included in the total credit hours for the award.

An associate degree program must be structured so that it can be completed within two and one-half years of full-time attendance, including prerequisites.

b. Course Sequencing

Curricula must demonstrate appropriate course sequencing to promote student attainment of knowledge, skills, and abilities. For example, a program may not enroll a student in both a course and its prerequisite course during the same semester, unless both courses can be delivered in a compressed format without an overlap in the two courses.

c. Length of Semesters

Semesters, both traditional sixteen-week and shortened formats, should not award more than one SCH per week of instruction. More information about requirements for courses offered in shortened formats is available in [Coordinating Board Rule 4.6](#).

Instruction should be scheduled in a manner that maximizes students' opportunities for success. When a program has a full-time, lock-step schedule, institutions are encouraged to provide alternative tracks such as part-time schedules or other means to allow non-traditional students greater opportunities for success.

5. Verification of Workplace Competencies

To verify entry-level workplace competencies, the institution must provide at least one of the following for each approved award: a) capstone experience, b) eligibility for a credentialing exam, and/or c) an external learning experience. The experience should occur during the last semester of the student's educational program.

a. Capstone Experience

The capstone is a learning experience resulting in consolidation of a student's educational experience and certifies mastery of entry-level workplace competencies. Methods of providing a capstone experience include the following:

- (1) a comprehensive, discipline-specific examination prepared by the faculty of the workforce education program and administered at the conclusion of the program;

- (2) a course involving simulation of the workplace, case studies, portfolios, and employment scenarios; and
- (3) a discipline-specific project involving the integration of various teams of students performing activities to simulate situations that may occur in the workplace.

b. Credentialing Exams

Credentialing exams are licensure, certification, or registration exams provided by state or national agencies or by professional organizations.

c. External Learning Experiences

An external learning experience, paid or unpaid, enhances lecture and laboratory instruction and is provided at work sites appropriate to the discipline. The inclusion of an external learning experience in both certificate and applied associate degree plans is strongly recommended. The external learning experience allows a student to have practical, hands-on training and to apply learned concepts and theories in a workplace setting. There are five types of external learning experiences: clinicals, internships, practica, cooperative education, and apprenticeships. See Section C of this chapter for more information on external learning experiences and Section D for more information on apprenticeships.

6. Developmental Education Courses

For students with academic skill deficiencies, developmental education courses should be made available, as appropriate, to be taken prior to or in conjunction with curriculum requirements in workforce education programs. Developmental education courses for public college students will only be funded by the state for a total of 27 semester credit hours.

7. Establishment of Program Linkages

Programs should be designed to permit maximum access for students by establishing linkages with other programs in public secondary schools and/or other institutions of higher education.

Linkages may be demonstrated by articulation agreements that provide for student transfer, inverted degree plans, and advanced standing opportunities.

C. Characteristics of External Learning Experiences

Clinical and internship experiences provide workplace settings in which students learn and apply program theory and management of the work flow. Clinical experiences must take place in a health care setting and students must not be paid for the learning experience. Internship experiences take place in any setting outside of health care and students may or may not be paid for the learning experience.

Practica and cooperative education provide workplace settings in which students gain practical experience in a discipline, enhance skills, and integrate knowledge.

Clinical experiences and internships are defined as closely supervised experiences with instruction in theory provided concurrently. Practica and cooperative education courses are less closely supervised, apply previously learned theory, and are suitable for the student who can work more independently and is either working in the discipline (cooperative education) or is preparing for career entry (practicum). Students may or may not be paid for the learning experience.

The following principles apply to external learning experiences:

1. External learning experiences must ultimately be under the control of the educational institution, although individuals in the sponsoring workplace may be responsible for the daily supervision of the student or for the lecture component of cooperative education.
2. External learning experiences must be governed by a written, signed agreement between the higher education institution and the organization providing the experience. The higher education institution must maintain copies of such agreements and have them available for review by Coordinating Board staff.

The affiliation agreement should indicate what services each entity will be responsible for and the timeline for expiration or renewal. The renewal process for sites outside the institution's service area should be timed to coincide with the Higher Education Regional Council's approval process.

3. Institutions are encouraged to provide access to liability insurance for students enrolled in external learning experiences.
4. Each institution must ensure that the external learning experience is consistent with industry standards, supports specific written objectives outlined by the educational institution, and emphasizes current practices in the field of specialization. The on-site supervisor of each external experience should have appropriate qualifications in the applicable discipline. Written evaluation records must be maintained by the educational institution.
5. Prior to the beginning of the external experience, the institution must provide both the student and the external site with written documentation of the objectives, instructional strategies, and evaluation mechanisms of the external learning experience.
6. A written External Learning Experience Student Evaluation Form, based on the student's learning plan and describing student learning outcomes, must be developed by the instructor in conjunction with the external learning supervisor prior to the start of the external learning experience. See Figure 3.4, Sample External Learning Experience Student Evaluation Form, at the end of this chapter.
7. Prior to the external learning experience, each student must receive a statement of the expectations of the external site.
8. The maximum number of external contact hours in an AAS program must not exceed 1008 hours unless the program is specifically exempt. Exemption may be granted to health professions programs based on the standard of practice for the specific discipline.

To apply for an exemption, a professional organization must submit to the Coordinating Board a request and a rationale for such exemption. If a waiver is granted, it will apply to all programs in that discipline.

The Coordinating Board has established the following external contact hour caps, based on state and national standards of practice:

<u>Discipline Name</u>	<u>CIP Code</u>	<u>External Contact Hour Cap</u>
Diagnostic Medical Sonography	51.0910	2000
Echocardiography	51.0910	1500
Electroneurodiagnostics and Polysomnography Technology	51.0903	2000
Invasive Cardiology	51.0901	1500
Nuclear Medical Technology	51.0905	2000
Radiation Therapy	51.0907	1500
Radiologic Technology	51.0911	2000
Respiratory Care Therapy	51.0908	2000
All other CIP codes		1008

9. In clinical, internship, and practicum experiences, formally scheduled discussion of the external experience with students is considered part of the external experience, not a separate lecture component for credit hour assignment.
10. Continuing education workforce awards, including marketable skills achievement awards and institutional awards, may include external learning experience courses if they are required for licensure or certification. External learning experiences in continuing education must be approved in advance. An external learning experience course is awarded one CEU for every 10 contact hours. External learning experiences may be approved for continuing education as follows:
 - a. up to 10 contact hours in a topic may be included in a lecture/laboratory course; and
 - b. more than 10 contact hours in a topic must be contained in a free-standing course separate from any lecture or laboratory course.

An external learning course that is not listed in the WECM must be submitted as a Local Need course and must be approved in advance of instruction to receive funding.

Table 3.1 summarizes the instructional structure for external learning experiences. Table 3.2 provides the SCH and contact hour ranges for external learning experiences.

Table 3.1: External Learning Experiences

Criteria	Practicum	Cooperative Education	Clinical Experience	Internship
1. Level of Instruction	Basic, Intermediate, or Advanced	Basic, Intermediate, or Advanced	Basic, Intermediate, or Advanced	Basic, Intermediate, or Advanced
2. Type of Learning	Required for health programs; required or elective for non-health programs	Required or elective	Required or elective	Required or elective
3. Student Outcomes	Gain practical experience in a discipline; enhance skills, and integrate knowledge	Gain practical experience in a discipline; enhance skills, and integrate knowledge	Synthesize new knowledge; and/or apply previous knowledge; and/or learn to manage the work flow	Synthesize new knowledge; and/or apply previous knowledge; and/or learn to manage the work flow
4. Method of Instruction	Supervised practice	Lecture with supervised practice	Practical experience related to theory simultaneously	Practical experience related to theory simultaneously
5. Type of Supervision	<u>Health Related</u> : Direct by faculty or a clinical preceptor <u>Non-Health Related</u> : Indirect by external site supervisor	Indirect by external site supervisor	Direct and/or close by faculty or clinical preceptor	Direct by external site supervisor
6. Lecture Component	Separate prerequisite or co-requisite course	1 hour/week required to be included	Separate prerequisite or co-requisite course	Separate prerequisite or co-requisite course
7. Role of College Faculty	Periodic visits	Lecture and/or periodic visits to external site	Primary instructor or periodic visits	Primary instructor or periodic visits
8. SCH to Contact Hour Ratio	1:7, 1:8, 1:9, or 1:10	1:7, 1:8, 1:9, or 1:10	1:3, 1:4, 1:5, or 1:6	1:3, 1:4, 1:5, or 1:6

Table 3.2: External Learning Experience SCH Course Ranges

SCH	Contact Hrs Semester	Clinical	Internship	Practicum	Cooperative Education
1	48-96	xxxx1160, 1161, 1162 or 1163 xxxx2160, 2161, 2162 or 2163	xxxx2186, 2187, 2188, or 2189	n/a	n/a
1	112-160	n/a	n/a	xxxx1164,1165, 1166, 1167, 1168 or 1169 xxxx2164, 2165, 2166, 2167, 2168 or 2169	n/a
2	96-192	xxxx1260, 1261, 1262 or 1263 xxxx2260, 2261, 2262 or 2263	xxxx2286, 2287, 2288, or 2289	n/a	n/a
2	128-176	n/a	n/a	n/a	xxxx1280, 1281, 1282, 1283, 1284 or 1285 xxxx2280, 2281, 2282, 2283, 2284 or 2285
2	224-320	n/a	n/a	xxxx1264, 1265, 1266, 1267, 1268 or 1269 xxxx2264, 2265, 2266, 2267, 2268 or 2269	n/a
3	144-288	xxxx1360, 1361, 1362 or 1363 xxxx2360, 2361, 2362 or 2363	xxxx2386, 2387, 2388, or 2389	n/a	n/a
3	240-336	n/a	n/a	n/a	xxxx1380, 1381, 1382, 1383, 1384 or 1385 xxxx2380, 2381, 2382, 2383, 2384 or 2385
3	336-480	n/a	n/a	xxxx1364, 1365, 1366, 1367, 1368 or 1369 xxxx2364, 2365, 2366, 2367, 2368 or 2369	n/a
4	192-384	xxxx1460, 1461, 1462 or 1463 xxxx2460, 2461, 2462 or 2463	xxxx2486, 2487, 2488, or 2489	n/a	n/a
4	352-496	n/a	n/a	n/a	xxxx1480, 1481, 1482, 1483, 1484 or 1485 xxxx2480, 2481, 2482, 2483, 2484 or 2485
4	448-640	n/a	n/a	xxxx1464, 1465, 1466, 1467, 1468 or 1469 xxxx2464, 2465, 2466, 2467, 2468 or 2469	n/a
5	240-480	xxxx1560, 1561, 1562 or 1563 xxxx2560, 2561, 2562 or 2563	xxxx2586, 2587, 2588, or 2589	n/a	n/a
5	464-656	n/a	n/a	n/a	xxxx1580, 1581, 1582, 1583, 1584 or 1585 xxxx2580, 2581, 2582, 2583, 2584 or 2585
5	560-640	n/a	n/a	xxxx1564, 1565, 1566, 1567, 1568 or 1569 xxxx2564, 2565, 2566, 2567, 2568 or 2569	n/a
6	288-576	xxxx1660, 1661, 1662 or 1663 xxxx2660, 2661, 2662 or 2663	xxxx2686, 2687, 2688, or 2689	n/a	n/a
6	576-656	n/a	n/a	n/a	xxxx1680, 1681, 1682, 1683, 1684 or 1685 xxxx2680, 2681, 2682, 2683, 2684 or 2685

D. Characteristics of Apprenticeships

An apprenticeship is a structured system of job training designed to prepare individuals for occupations in skilled trades and crafts. It combines on-the-job industry skill standards training under the supervision of experienced journeyman-level workers with job-related classroom instruction. Traditional apprenticeship programs are in construction and manufacturing and include occupations such as electrician, plumber/pipefitter, machinist, and sheet metal worker. The Department of Labor has approved some non-traditional occupations for apprenticeships, such as child development and research technician. However, each institution considering a program in these occupations must determine whether state laws and regulations allow apprenticeships in non-traditional occupations.

All apprenticeship programs must be registered with the U.S. Department of Labor's [Office of Apprenticeship](#). These programs must be under the direction of an Apprenticeship Committee as described in [Texas Education Code \(TEC\) Chapter 133](#). Program sponsors such as individual employers, associations of employers, or groups of employers in cooperation with organized labor may provide on-the-job training (OJT). Public school districts and postsecondary institutions may provide the related classroom instruction component necessary to fulfill the requirements of a BAT-approved apprenticeship program. The related classroom instruction may provide SCH or continuing education units (CEU) and may be part of an applied associate degree or workforce education certificate.

According to the Texas Education Code, apprenticeships are controlled by employers. If an apprentice takes college courses that are funded by the Coordinating Board as part of the apprenticeship, the following principles apply:

1. The college courses remain subject to the SACSCOC *Principles of Accreditation*;
2. Courses reported for state funding must be open to any eligible student, both apprentice and non-apprentice;
3. The college is in control of all classes with and without apprentices;
4. The Apprenticeship Committee, employers, and the Office of Apprenticeship are responsible for ensuring the program meets Department of Labor standards and for evaluating a student's completion of the program; and
5. If employers select a curriculum that coincides with the college's requirements for a degree or certificate as part of the apprenticeship program, students may receive a collegiate award as part of the overall apprenticeship.

Institutions may participate in apprenticeship training either in an apprenticeship-dedicated program approved and funded by the Texas Workforce Commission (TWC) or in the enrollment of apprentices in Coordinating Board-approved and funded coursework open to any qualified student.

1. State Funding Sources

State funds are available for job-related classroom instruction costs. State funds may be accessed from either the TWC or the Coordinating Board, but not both. State funds are not available for the on-the-job-training portion of an apprenticeship program.

Authorization for state funding of the classroom costs of apprenticeship programs from the

TWC is found in [TEC Chapter 133](#). For further information on TWC processes, contact the TWC. Additional information is available at <http://www.twc.state.tx.us/svcs/apprentice.html>.

Institutions may provide up to 144 hours of job-related classroom instruction as CEU or SCH, following Coordinating Board rules for all degrees and certificate programs. The college may enroll regular as well as apprenticeship students in such courses and obtain regular contact hour funding for them. These courses should be chosen from the *Workforce Education Course Manual (WECM)* as described in Chapter Four. Tuition and fees apply. See [TEC 54.051](#) and guidelines in this manual.

2. College Credit

The above-referenced 144 hours of job-related classroom instruction per year may be transcribed by colleges as CEU or as SCH, resulting in a maximum award of 14.4 CEU or approximately 6-9 SCH per year.

Up to 1008 contact hours of on-the-job training acquired through an apprenticeship may apply toward the completion of a certificate (CE or credit) or an AAS degree. (As noted above, on-the-job training hours do not qualify for state funding from either TWC or the Coordinating Board.) The institution should have a governing board-approved process for determining what courses to transcript and the number of CEUs or SCH to be awarded. For CE courses the ratio of one CEU to 10 contact hours should be used, resulting in a maximum of 100.8 CEU. For credit courses the ratio of one SCH to 7-10 contact hours of apprenticeship training per week for 16 weeks should be used, resulting in a program maximum of nine SCH for students.

Apprenticeship programs and colleges are encouraged to work together so that students are able to learn, earn, and acquire college credit. Colleges are also urged to explore partnership opportunities with secondary schools in creating apprenticeship programs.

Additional information is available in [TEC Chapter 61](#) and [Chapter 133](#), [Coordinating Board Rule 9.27](#), and [Texas Workforce Commission Rules Chapter 837](#).

E. Characteristics of Applied Associate Degrees

An applied associate degree results in a formal award that indicates mastery of a prescribed series of competencies with defined employment outcomes. The degree options for a workforce education program are the Associate of Applied Science (AAS) degree and the Associate of Applied Arts (AAA) degree. AAS and AAA degrees are technical in nature and are usually identified with a broad designation (e.g., AAS in Electronics and AAA in Music Performance).

Degrees must be limited to the number of semester credit hours required for the degree by SACSCOC, currently 60 SCH. If the number of SCH required to complete an associate's program exceeds 60, the institution must provide detailed written documentation explaining the compelling academic reason for the number of required hours, such as, but not limited to, programmatic accreditation requirements, statutory requirements, or licensure/certification requirements that cannot be met without exceeding the 60-hour limit. The Coordinating Board staff will review the documentation provided and make a

determination to approve or deny a request to exceed the 60-hour limit. Institutions of higher education must be in compliance with this subsection on or before the start of the 2015 fall semester.

Institutions may choose their own award titles provided the title clearly defines the nature of the award. Institutions are encouraged to use common award titles as specified in the CIP code manual to promote consistency with program offerings and awards granted by other institutions, as programs should be designed to educate students broadly within an occupation or industry. Where applicable, certificates should follow the same guidelines, using standard terminology and types of awards.

Approved applied associate degree and certificate programs will appear in the Coordinating Board's Workforce Education Inventory. All programs will be subject to established statewide program evaluation procedures. Awards must be listed in an institution's catalog, appear on the student's transcript, and be subject to the institution's Graduate Guarantee policy. The guarantee must assure a graduate's employer that the graduate has met program competencies and must offer up to nine tuition-free semester hours of education for a program graduate judged by the employer as unable to perform on the job the competencies specified in the college program.

An AAS or AAA degree should have a technical component composed of 50 percent to 75 percent of the course credits drawn from a common technical specialty identified by the program CIP code. This ensures that each degree or certificate program has a clearly defined subject matter focus and provides students with opportunities for employment and career advancement. The curriculum may include both *Workforce Education Course Manual* (WECM) courses and *Lower-Division Academic Course Guide Manual* (ACGM) courses that are directly related to the discipline. The use of WECM Special Topics and Local Need courses in the curriculum is limited to three courses. In certain cases, parallel courses are listed in the WECM and the ACGM. In these instances, the ACGM courses with WECM equivalents may count as part of the technical specialty component. See Chapter 4 for more information.

The remaining percentage of an AAS or AAA degree should consist of support courses and general education courses. These guidelines are not intended to establish an arbitrary number or percentage of specific courses that must be contained in a program; logical exceptions to the guidelines will be permitted.

In cases where a program may require a preponderance of academic courses, the institution must document that the additional academic coursework was recommended by the program advisory committee and that it is directly related to the occupational field and/or to a Coordinating Board-approved Field of Study Curriculum.

To meet SACSCOC guidelines, each degree must have a minimum of 15 semester hours of general education courses. Courses must be selected from the following areas and must include at least 3 SCH in each area: Humanities/Fine Arts, Social/Behavioral Sciences, and Natural Sciences/Mathematics. Table 3.3 maps the Texas Core Curriculum component areas to these SACSSOC categories. Generally, courses should be selected from the institution's core curriculum, though each institution should work with its SACSCOC representative concerning courses that meet the requirements. General education courses must be

transferable courses found in the ACGM or on the college’s approved academic unique need course inventory, although unique need courses cannot be part of a core curriculum. See SACSCOC [Principles of Accreditation](#) and the [Texas Core Curriculum](#) for further information.

Table 3.3: SACSCOC-Required General Education Courses
By Texas Core Curriculum Component Area

Humanities/ Fine Arts*	Social/ Behavioral Science	Natural Science and Math
<ul style="list-style-type: none"> • Communication • Language, Philosophy, and Culture • Creative Arts 	<ul style="list-style-type: none"> • American History • Government/Political Science • Social and Behavioral Sciences 	<ul style="list-style-type: none"> • Mathematics • Life and Physical Sciences

A program specialty is a variation within one AAS or AAA degree that allows students to take a particular sequence of courses. A specialty does not result in a different AAS or AAA degree and is not listed in the Coordinating Board program inventory, but may result in a separate certificate award. The specialty must match the program CIP code of the approved award and must have at least 50 percent of the technical specialty component (including WECM and ACGM courses) in common. Program specialties may be approved as additions to the original degree. For example, an institution could offer a single degree program, AAS in Hospitality Management, with two specializations, one in Hotel Management and another in Tourism.

An AAS or AAA degree program that provides a shortened track of 16-45 SCH for students who hold a related degree may offer an Advanced Technical Certificate (ATC) for the shortened track. For example, an AAS degree program in Sonography may provide an ATC in Sonography for students who already hold an AAS in Echocardiography. In this case, the program inventory would list both an AAS and an ATC in Sonography. The ATC is discussed further below, in Characteristics of Workforce Certificates.

All students enrolled in an associate degree program or a Level Two certificate program must meet the requirements of the Texas Success Initiative (TSI). More information about TSI requirements is available in [Coordinating Board Rules Chapter 4, Subchapter C](#).

F. Characteristics of Workforce Certificates

A credit certificate should provide progression toward an AAS or an AAA degree. At least 50 percent of the course credits should be drawn from a single technical specialty. The remaining courses may be technical or academic courses.

Credit certificates will be approved in four different categories or levels:

1. A level one certificate (CERT1) can be completed by a student in one calendar year or less. It must consist of at least 15 SCH and no more than 42 SCH. Level one certificate programs are exempt from TSI requirements, but certificate programs may perform local assessment and remediation of students, provided that these activities do not exclude the student from enrollment in the certificate program.

2. A level two certificate (CERT2) is defined as any certificate for which a student must meet certain eligibility requirements prior to entry into the program. A CERT2 program may consist of between 30 SCH and 51 SCH. Students enrolling in CERT2 programs are subject to the TSI requirements and may be subject to other eligibility requirements as determined by the institution.
3. An Enhanced Skills Certificate (CERT3) is an optional certificate associated with an AAS or AAA degree program that is intended to provide advanced skills, identified by business and industry, which are not part of the degree. The certificate must be clearly defined in course content and outcomes. It must consist of at least 6 SCH and no more than 12 SCH and may extend an AAS or AAA degree to an overall total that must not exceed 72 SCH. ESCs are awarded concurrently with a degree but may not be considered to be an intrinsic part of the degree or be used to circumvent the 60 SCH associate degree limitation.
4. An Advanced Technical Certificate (ATC) is a certificate that has a defined associate or baccalaureate degree as a prerequisite. In some cases, junior-level standing may be a prerequisite for admission into an ATC. The ATC must consist of at least 16 SCH and no more than 45 SCH. It must be focused, clearly related to the prerequisite degree, and justifiable to meet industry or external agency requirements. An advanced technical certificate attached to an AAS degree must be in the same program area as the AAS degree. For an advanced technical certificate attached to a baccalaureate degree or to junior-level standing in a baccalaureate program, the institution should consult with Coordinating Board staff to determine the appropriate program area to which the certificate should be assigned.

The following credit and noncredit certificates and awards may also be offered:

1. A Career Foundation Core (CFC) Certificate is created through a statewide curriculum development process recognized by the Coordinating Board with input from business, industry, and instructional specialists. Each CFC certificate is based upon the identification of a sequence of courses and learning outcomes that represent a career foundation core within a specific career cluster. A CFC can be defined as a level one or level two certificate. A level one CFC certificate draws its core entirely from the WECM, while a level two CFC may draw from both the WECM and ACGM. The intent of this award is to maximize an individual student's opportunity for employment, with options to pursue the program's associate degree or transfer to another higher education institution or technical college. This certificate also allows a student to pursue a second year in a specific Career Pathway program.
2. A Continuing Education (CE) certificate program consists of workforce knowledge and skills identified in the same manner as those in credit programs. All CE certificate programs must be listed in the college's approved inventory of programs and must be transcribed. Workforce education programs of 780 contact hours or more may be offered only as SCH. An exception is made for Emergency Medical Technology/Paramedic continuing education programs, CIP 51.0904, which may have a maximum of 800 contact hours.
3. A Marketable Skills Achievement Award (MSA) is a sequence of courses that meet the

minimum standard for program length specified by the Texas Workforce Commission for the federal Workforce Innovation and Opportunity Act (WIA) program (9-14 SCH for credit courses or 144-359 contact hours for workforce continuing education courses). An MSA award must possess the following characteristics:

- a. The award is TSI-waived under [Coordinating Board Rule 4.54b](#);
- b. The content of the award must be recommended by an external workforce advisory committee, or the occupation must appear on the Local Workforce Development Board's Demand Occupations list;
- c. In most cases, the award should be composed of WECM courses only. However, non-stratified academic courses may be used occasionally if recommended by the external committee and if appropriate for the content of the award;
- d. The award complies with the Single Course Delivery guidelines for WECM courses (see Chapter Four); and
- e. The award prepares students for employment in accordance with guidelines established for WIA.

Marketable Skills Achievement Awards do not require Coordinating Board approval and do not appear in the Board's Workforce Education Inventory.

4. Institutional Awards

In addition to awards recognized by the Coordinating Board, colleges may offer institutional awards of fewer than 15 SCH or 360 continuing education contact hours for completion of a course or series of courses that represent achievement of an identifiable skill proficiency. Institutional Awards do not require Coordinating Board approval and do not appear in the Board's Workforce Education Inventory.

G. Characteristics of Continuing Education (CE) Programs

A coherent sequence of continuing education courses that totals 360 or more contact hours must be submitted as a workforce education certificate program. Courses are considered to be part of a coherent sequence if they meet one of the following requirements:

1. include required and/or recommended prerequisites or co-requisites;
2. lead to an external credential (license, certification, or registration); or
3. are taken by a majority of students in sequence to meet occupational qualifications.

Workforce CE courses with basic skills content must be designed for specific occupations and specific occupational target populations and must include appropriate occupational objectives. Courses that are primarily intended to develop basic skills, such as Adult Basic Education, GED preparation, and TSI preparation, are not eligible for state funding under this category.

1. CE Administrative Criteria

The institution must have an identifiable office or division with designated professional staff to plan and administer workforce continuing education programs. Through this office, the institution must ensure that both administrative and program criteria are

followed for learning experiences offering CEU.

The institution must provide a supportive and positive learning experience through appropriate educational facilities, learning materials, equipment, and support services consistent with the goals and planned learning outcomes of each learning experience.

2. CE Program Criteria

The program or activity must be planned in response to educational needs that have been identified for a target audience.

Each program or activity must have clear and consistent written statements of intended learning outcomes (e.g., behavioral or performance objectives). These outcomes should represent what learners are expected to accomplish as a result of the learning activity (the knowledge, skills, and abilities required to move a target audience to another level of competency). Program content, instructional methods, and types of learner assessment should be dictated by the learning outcomes.

Qualified instructional personnel must be involved in planning and conducting each learning experience. Instructional personnel should have competence in the subject matter, a clear understanding of intended learning outcomes, the ability to use appropriate instructional strategies, and the ability to effectively communicate educational content to the target audience.

The choice of content and instructional methods should be consistent with the desired learning outcomes. Instructional methods should appeal to the diverse learning styles of each audience. Learners should be actively involved, have an opportunity to process what they have learned, and receive feedback.

Participants should demonstrate the achievement of learning outcomes through appropriate assessment strategies. Assessment may take the form of questions and answers, discussions, simulations, written or oral exercises, reports, projects, or plans. Assessment should be used throughout the program to promote and reinforce active learning.

Programs should be evaluated regularly for their quality and effectiveness. Evaluation may measure reactions of participants, the amount of learning, and/or changes in behavior. Evaluation may also provide information about the planning, development, administration, instruction, and support services for a program.

3. Funding of Workforce CE Courses

To be approved for state funding, workforce continuing education courses must be consistent with the role and mission of the institution and must be designed to respond effectively to identified workforce needs by providing the following:

- a. preparatory education in occupations addressed in credit workforce education programs;
- b. occupations that require less than an associate's degree for which there is a

- documented demand within the Texas economy; or
- c. education to enhance or extend the skills of employees already working in a particular field.

Workforce continuing education courses submitted for Local Need approval should not duplicate existing WECM courses or other approved workforce continuing education courses offered by the institution.

A coherent sequence of continuing education courses that totals 360 or more contact hours must be approved as a postsecondary workforce education program. No single workforce continuing education lecture or laboratory course may require more than 176 contact hours.

Tuition and fees for workforce CE courses offered for CEU must be established by the institution's governing board and must be uniformly and consistently assessed. The institution's board must at least annually ratify or approve any changes in tuition and fees; however, the board may delegate interim authority for establishment of tuition and fees.

An approved workforce CE course may be delivered through contract instruction consistent with [Coordinating Board Rules Chapter 9, Subchapter G](#).

An approved workforce continuing education course may be offered out-of-district/service area, subject to approval by the appropriate Higher Education Regional Council(s). See [Coordinating Board Rules Chapter 4](#), Subchapters P and Q, for more information.

Further information about approval and funding of workforce continuing education courses taught by Texas public colleges is available in [TEC 54.051](#) and in [Coordinating Board Rules Chapter 9](#), Subchapters A, E, F and G.

H. Distance Education, Off-Campus, and On-Campus Extension Programs

All off-campus instruction must adhere to [Coordinating Board Rules Chapter 4](#), Subchapters P and Q. Notification and approval procedures for distance education, off-campus, and on-campus extension programs and courses are available at www.thecb.state.tx.us/offcampus.

Figure 3.1: Sample Advisory Committee Meeting Record Template

CHAIRPERSON:		
MEETING DATE:	MEETING TIME:	MEETING PLACE:
RECORDER:		PREVIOUS MEETING:

MEMBERS: (P = Present)

OTHERS PRESENT:

(P?)	Name and Title (List all members)	Business Affiliation	Name and Title

AGENDA

Agenda Item	Action, Discussion, Information	Responsibility
Approve Minutes from Last Meeting		
Old Business:		
New Business:		
Curriculum Decisions:		
Other:		

MINUTES

Key Discussion Points	Discussion
Old Business:	
New Business:	
Curriculum Decisions:	
Other:	

CHAIRPERSON SIGNATURE (or designee):	DATE:	NEXT MEETING:
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Figure 3.2: Sample Program Competency Profile for Business Management Certificate (Partial)

PROGRAM COMPETENCY	WECM/ACGM COURSE									
	ACCT 1301 Introduction to Accounting	BUSI 1301 Introduction to Business	BUSI 1307 Personal Finance	BCIS 1305 Business Computer Applications	BGMT 2305 Advanced Communications in Management	ACNT 1313 Computerized Accounting Applications	BUSG 2309 Small Business Management	BGMT 2388 Internship	HRPO 2301 Human Resources Management	MATH 1324 Mathematics for Business
Compare and Interpret Data	X	X			X	X				X
Share/Report Relevant Data				X					X	
Take Required Action		X	X	X		X	X	X		
Follow Up, as Necessary		X	X	X			X	X		
Communicate Company Image, Policies, and Safety Procedures				X		X	X	X		
Outline Job Duties		X		X			X			
Identify Specific Procedures per Task	X					X		X		
Teach Specific Procedures per Task			X	X	X	X		X		
Observe/Verify Comprehension of Job Duties						X		X		
Evaluate/Correct Employee Performance		X				X	X	X		
Retrain as Needed	X	X				X		X		
Assess Strengths and Weaknesses						X		X		
Identify Employees' Objectives		X		X		X		X		
Outline Plan to Strengthen Weaknesses						X		X		
Reinforce Strengths	X	X				X		X		
Provide Experience in Various Job Strengths	X	X	X	X	X	X	X	X	X	
Determine Mutual Objectives Within Organization		X	X	X	X	X	X	X	X	
Provide Continuous Guidance		X	X					X	X	
Recognize /Reward Job Performance						X		X		
Determine Basic Staff Requirements		X	X		X	X	X	X	X	
Anticipate Changes in Staffing Needs	X			X		X	X		X	
Review Budget	X	X	X	X		X	X			X
Adjust Staff Accordingly					X		X		X	

Note: This is a partial Program Competency Profile (PCP), dealing only with aspects of human resources management. A full PCP captures a comprehensive profile of all competencies related to a job.

Figure 3.3: Sample SCANS Matrix Model

Program: Precision Metal Working Award: Machine Tool Technology/Machinist CIP: 48.0501									Credential: Certificate	
LIST OF ALL COURSES REQUIRED AND IDENTIFIED COMPETENCIES										
SCANS COMPETENCIES								Course Number	Course Title	
1	2	3	4	5	6	7	8			
x	x	x	x	x	x	x	x	ORIE 0102	Introduction to College	
x	x	x	x	x	x	x	x	MCHN 1438	Basic Machine Shop I	
x	x	x	x	x	x	x	x	MCHN 1343	Machine Shop Mathematics	
x	x	x	x	x	x	x	x	MCHN 1317	Machine Shop Blueprint Reading	
x	x	x	x	x	x	x	x	TECH 1341	Occupational Mathematics	
x	x	x	x	x	x	x	x	MCHN 1341	Basic Machine Shop II	
x	x		x		x		x	ENGL 1301	Oral and Written Communications	
x	x	x	x	x	x	x	x	WLDG 1421	Introduction to Welding Fundamentals	
x	x		x	x	x			PSYC 1301	Human Relations	
x	x	x	x	x	x	x	x	MCHN 1352	Intermediate Machining I	
x	x	x	x	x	x	x	x	MCHN 1330	Statistical Process Control for Machinist	
x	x	x	x	x	x	x	x	MCHN 2344	Computerized Numerical Control Programming	
x	x	x	x	x	x	x		MCHN 1354	Intermediate Machining II	
x	x	x	x	x	x	x		MCHN 2335	Advanced CNC Machining	
									PROGRAM COMPETENCIES (as determined by advisory committee)	
									8. BASIC USE OF COMPUTERS	
									7. WORKPLACE COMPETENCIES	
									6. PERSONAL QUALITIES	
									5. THINKING SKILLS	
									4. SPEAKING AND LISTENING	
									3. ARITHMETIC OR MATHEMATICS	
									2. WRITING	
									1. READING	

Figure 3.4: Sample External Learning Experience Student Evaluation Form

Student Name _____ Affiliating Institution _____
 Dates of External Learning Experience: From _____ To _____
 Dates Absent: _____ Number of Days Late: _____

Please circle the most representative response for each behavior demonstrated by the student, using the key below. Please make any additional comments or information on the back side of this sheet.

Key:
1 = Never 2 = Sometimes/Occasionally 3 = Usually 4 = Almost Always 5 = Always
N/A = Not Applicable or Not Observed

Affective Traits:

1. Starts activities immediately	N/A	1	2	3	4	5
2. Respects the meaning of privileged information	N/A	1	2	3	4	5
3. Maintains personal appearance and hygiene as appropriate for the workplace	N/A	1	2	3	4	5
4. Is skillful in adapting to and working with others	N/A	1	2	3	4	5
5. Approaches assignments with confidence	N/A	1	2	3	4	5
6. Maintains an orderly work area	N/A	1	2	3	4	5
7. Replenishes supplies when needed	N/A	1	2	3	4	5
8. Willingly stays to complete or correct work	N/A	1	2	3	4	5
9. Searches for answers to questions in available time	N/A	1	2	3	4	5
10. Maintains/prepares satisfactory records	N/A	1	2	3	4	5
11. Follows established company procedures	N/A	1	2	3	4	5
12. Organizes workload	N/A	1	2	3	4	5
13. OTHER SKILLS UNIQUE TO THE OCCUPATION:						
a.	N/A	1	2	3	4	5
b.	N/A	1	2	3	4	5

Psychomotor Skills:

1. Routine tasks are completed within acceptable limitations	N/A	1	2	3	4	5
2. Routine tasks are completed within acceptable time	N/A	1	2	3	4	5
3. Sophisticated tasks are completed within acceptable limitations	N/A	1	2	3	4	5
4. Sophisticated tasks are completed within acceptable time	N/A	1	2	3	4	5
5. OTHER SKILLS UNIQUE TO THE OCCUPATION:						
a.	N/A	1	2	3	4	5
b.	N/A	1	2	3	4	5

Cognitive Skills:

1. Transfers knowledge of principles and procedures to new techniques	N/A	1	2	3	4	5
2. Recognizes tasks that are beyond student capacity	N/A	1	2	3	4	5
3. Applies classroom learning to workplace setting	N/A	1	2	3	4	5
4. Interprets charts, graphs, and data correctly	N/A	1	2	3	4	5
5. Troubleshoots equipment	N/A	1	2	3	4	5
6. Identifies and attempts to solve discrepancies in systems, results, or information	N/A	1	2	3	4	5
7. OTHER SKILLS UNIQUE TO THE OCCUPATION:						
a.	N/A	1	2	3	4	5
b.	N/A	1	2	3	4	5

This student has Entry-Level Skills:

(Please check one) Now
 After additional external learning experience
 After additional coursework
 After additional coursework and external learning experiences

I have seen this evaluation and discussed it with my workplace supervisor.

Student Signature _____ Date _____
 Supervisor Signature _____ Date _____
 Reviewed by College Instructor _____ Date _____