

The State Board of Education (SBOE) adopts amendments to §74.12 and §74.13, concerning graduation requirements. The amendments are adopted without changes to the proposed text as published in the February 28, 2025 issue of the *Texas Register* (50 TexReg 1078) and will not be republished. The amendments reflect changes to a career and technical education (CTE) course to align with recently adopted CTE Texas Essential Knowledge and Skills (TEKS) and update cross references.

REASONED JUSTIFICATION: At the April 2024 SBOE meeting, the SBOE approved for second reading and final adoption TEKS for a set of CTE courses in agriculture; aviation maintenance; and science, technology, engineering, and mathematics (STEM) with an effective date of August 1, 2025. The adopted amendments update the list of courses that can satisfy a science graduation requirement to reflect a CTE course that was retitled Physics for Engineering (formerly titled Principles of Technology) as a result of the 2024 CTE TEKS review.

The adopted amendments also update cross references to certain subchapters that are being reorganized.

The SBOE approved the amendments for first reading and filing authorization at its January 31, 2025 meeting and for second reading and final adoption at its April 11, 2025 meeting.

In accordance with Texas Education Code, §7.102(f), the SBOE approved the amendments for adoption by a vote of two-thirds of its members to specify an effective date earlier than the beginning of the 2025-2026 school year. The earlier effective date will allow districts of innovation that begin school prior to the statutorily required start date to implement the proposed rulemaking when they begin their school year. The effective date is August 1, 2025.

SUMMARY OF COMMENTS AND RESPONSES: The public comment period on the proposal began February 28, 2025, and ended at 5:00 p.m. on March 31, 2025. The SBOE also provided an opportunity for registered oral and written comments at its April 2025 meeting in accordance with the SBOE board operating policies and procedures. No public comments were received.

STATUTORY AUTHORITY. The amendments are adopted under Texas Education Code (TEC), §7.102(c)(4), which requires the State Board of Education (SBOE) to establish curriculum and graduation requirements; TEC, §28.025(a), which requires the SBOE to determine by rule the curriculum requirements for the foundation high school program that are consistent with the required curriculum and requires the SBOE to designate specific courses that are required for the foundation high school program; TEC, §28.025(b-2)(2), which requires the SBOE to allow a student by rule to comply with the curriculum requirements for the third and fourth mathematics credits under TEC, §28.025(b-1)(2), or the third and fourth science credits under TEC, §28.025(b-1)(3), by successfully completing a career and technical education course designated by the SBOE as containing substantially similar and rigorous content; and TEC, §28.025(c-1), which requires the SBOE to adopt rules regarding earning an endorsement.

CROSS REFERENCE TO STATUTE. The amendments implement Texas Education Code, §7.102(c)(4) and §28.025(a), (b-2)(2), and (c-1).

<rule>

#### §74.12. Foundation High School Program.

- (a) Credits. A student must earn at least 22 credits to complete the Foundation High School Program.
- (b) Core courses. A student must demonstrate proficiency in the following.
  - (1) English language arts--four credits. Two of the credits must consist of English I and II. (Students with limited English proficiency who are at the beginning or intermediate level of English language proficiency, as defined by §74.4(d) of this title (relating to English Language Proficiency Standards), may satisfy the English I and English II graduation requirements by successfully completing English I for Speakers of Other Languages and English II for Speakers of Other Languages.) A third credit must consist of English III, a comparable Advanced Placement (AP) English language arts course that does not count toward another credit required for graduation, or

a comparable International Baccalaureate (IB) English language arts course that meets all the requirements in §110.33 of this title (relating to English Language Arts and Reading, English III (One Credit), Beginning with School Year 2009-2010). A fourth credit may be selected from one full credit or a combination of two half credits from two different courses, subject to prerequisite requirements, from the following courses:

- (A) English IV;
  - (B) Independent Study in English;
  - (C) Literary Genres;
  - (D) Creative Writing;
  - (E) Research and Technical Writing;
  - (F) Humanities;
  - (G) Public Speaking III;
  - (H) Communication Applications, which must be combined with another half credit from the other courses listed in subparagraphs (A)-(G) and (I)-(S) of this paragraph;
  - (I) Oral Interpretation III;
  - (J) Debate III;
  - (K) Independent Study in Speech;
  - (L) Independent Study in Journalism;
  - (M) Advanced Broadcast Journalism III;
  - (N) Advanced Journalism: Newspaper III;
  - (O) Advanced Journalism: Yearbook III;
  - (P) a comparable Advanced Placement (AP) English language arts course that does not count toward another credit required for graduation;
  - (Q) a comparable International Baccalaureate (IB) English language arts course that meets all the requirements in §110.34 of this title (relating to English Language Arts and Reading, English IV (One Credit), Beginning with School Year 2009-2010);
  - (R) after the successful completion of English I, II, and III, a locally developed English language arts course or other activity, including an apprenticeship or training hours needed to obtain an industry-recognized credential or certificate that is developed pursuant to the Texas Education Code (TEC), §28.002(g-1);
  - (S) Business English; and
  - (T) a college preparatory English language arts course that is developed pursuant to the TEC, §28.014.
- (2) Mathematics--three credits. Two of the credits must consist of Algebra I and Geometry.
- (A) The additional credit may be selected from one full credit or a combination of two half credits from two different courses, subject to prerequisite requirements, from the following courses or a credit selected from the courses listed in subparagraph (B) of this paragraph:
    - (i) Mathematical Models with Applications;
    - (ii) Mathematical Applications in Agriculture, Food, and Natural Resources;
    - (iii) Digital Electronics;
    - (iv) Financial Mathematics;

- (v) Applied Mathematics for Technical Professionals;
    - (vi) Accounting II;
    - (vii) Manufacturing Engineering Technology II; and
    - (viii) Robotics II.
  - (B) The additional credit may be selected from one full credit or a combination of two half credits from two different courses, subject to prerequisite requirements, from the following courses:
    - (i) Algebra II;
    - (ii) Precalculus;
    - (iii) Advanced Quantitative Reasoning;
    - (iv) Independent Study in Mathematics;
    - (v) Discrete Mathematics for Problem Solving;
    - (vi) Algebraic Reasoning;
    - (vii) Statistics;
    - (viii) a comparable AP mathematics course that does not count toward another credit required for graduation;
    - (ix) AP Computer Science A;
    - (x) IB Computer Science Higher Level;
    - (xi) Engineering Mathematics;
    - (xii) Statistics and Business Decision Making;
    - (xiii) Mathematics for Medical Professionals;
    - (xiv) Discrete Mathematics for Computer Science;
    - (xv) pursuant to the TEC, §28.025(b-5), after the successful completion of Algebra II, a mathematics course endorsed by an institution of higher education as a course for which the institution would award course credit or as a prerequisite for a course for which the institution would award course credit. The Texas Education Agency (TEA) shall maintain a current list of courses offered under this clause; and
    - (xvi) after the successful completion of Algebra I and Geometry, a locally developed mathematics course or other activity, including an apprenticeship or training hours needed to obtain an industry-recognized credential or certificate that is developed pursuant to the TEC, §28.002(g-1).
  - (C) One credit of a two-credit IB mathematics course selected from Chapter 111 of this title (relating to Texas Essential Knowledge and Skills for Mathematics) may satisfy the additional mathematics credit.
- (3) Science--three credits. One credit must consist of Biology or a comparable AP or IB biology course.
- (A) One credit must be selected from the following laboratory-based courses:
    - (i) Integrated Physics and Chemistry;
    - (ii) Chemistry;
    - (iii) Physics;
    - (iv) Physics for Engineering; and

- (v) a comparable AP or IB chemistry or physics course that does not count toward another credit required for graduation.
  - (B) The additional credit may be selected from one full credit or a combination of two half credits from two different courses, subject to prerequisite requirements, from the following laboratory-based courses:
    - (i) Chemistry;
    - (ii) Physics;
    - (iii) Aquatic Science;
    - (iv) Astronomy;
    - (v) Earth Systems Science;
    - (vi) Environmental Systems;
    - (vii) Specialized Topics in Science;
    - (viii) a comparable AP science course that does not count toward another credit required for graduation;
    - (ix) Advanced Animal Science;
    - (x) Advanced Plant and Soil Science;
    - (xi) Anatomy and Physiology;
    - (xii) Medical Microbiology;
    - (xiii) Pathophysiology;
    - (xiv) Food Science;
    - (xv) Forensic Science;
    - (xvi) Biotechnology I;
    - (xvii) Biotechnology II;
    - (xviii) Physics for Engineering;
    - (xix) Scientific Research and Design;
    - (xx) Engineering Design and Problem Solving;
    - (xxi) Engineering Science;
    - (xxii) pursuant to the TEC, §28.025(b-5), after the successful completion of physics, a science course endorsed by an institution of higher education as a course for which the institution would award course credit or as a prerequisite for a course for which the institution would award course credit. The TEA shall maintain a current list of courses offered under this clause;
    - (xxiii) a locally developed science course or other activity, including an apprenticeship or training hours needed to obtain an industry-recognized credential or certificate that is developed pursuant to the TEC, §28.002(g-1); and
    - (xxiv) one credit of a two-credit IB science course selected from Chapter 112 of this title (relating to Texas Essential Knowledge and Skills for Science).
  - (C) Credit may not be earned for both physics and Physics for Engineering to satisfy science credit requirements.
- (4) Social studies--three credits.
- (A) One credit must consist of United States History Studies Since 1877.

- (B) One-half credit must consist of United States Government.
  - (C) One-half credit must be selected from the following:
    - (i) Economics with Emphasis on the Free Enterprise System and Its Benefits; or
    - (ii) Personal Financial Literacy/Economics.
  - (D) One credit must be selected from the following:
    - (i) World History Studies;
    - (ii) World Geography Studies; or
    - (iii) a comparable AP or IB world history or world geography course that does not count toward another credit required for graduation.
- (5) Languages other than English (LOTE)--two credits.
- (A) The credits may be selected from the following:
    - (i) any two levels in the same language, including comparable AP or IB language courses that do not count toward another credit required for graduation; or
    - (ii) two credits in computer programming languages, including computer coding, to be selected from Computer Science I, II, and III, AP Computer Science Principles, AP Computer Science A, IB Computer Science Standard Level, and IB Computer Science Higher Level.
  - (B) A single two-credit IB LOTE course may only satisfy one LOTE requirement.
  - (C) If a student, in completing the first credit of LOTE, demonstrates that the student is unlikely to be able to complete the second credit, the student may substitute another appropriate course as follows:
    - (i) Special Topics in Language and Culture;
    - (ii) World History Studies or World Geography Studies for a student who is not required to complete both by the local district;
    - (iii) another credit selected from Chapter 114 of this title (relating to Texas Essential Knowledge and Skills for Languages Other Than English); or
    - (iv) computer programming languages, including computer coding.
  - (D) The determination regarding a student's ability to complete the second credit of LOTE must be agreed to by:
    - (i) the teacher of the first LOTE credit course or another LOTE teacher designated by the school district, the principal or designee, and the student's parent or person standing in parental relation;
    - (ii) the student's admission, review, and dismissal (ARD) committee if the student receives special education services under the TEC, Chapter 29, Subchapter A; or
    - (iii) the committee established for the student under Section 504, Rehabilitation Act of 1973 (29 United States Code, Section 794) if the student does not receive special education services under the TEC, Chapter 29, Subchapter A, but is covered by the Rehabilitation Act of 1973.
  - (E) A student, who due to a disability, is unable to complete two credits in the same language in a language other than English, may substitute a combination of two credits that are not being used to satisfy another specific graduation requirement selected from English language arts, mathematics, science, or social studies or two credits in career and technical education for the LOTE credit requirements. The determination regarding a student's ability to complete the LOTE credit requirements will be made by:

- (i) the student's ARD committee if the student receives special education services under the TEC, Chapter 29, Subchapter A; or
  - (ii) the committee established for the student under Section 504, Rehabilitation Act of 1973 (29 United States Code, Section 794) if the student does not receive special education services under the TEC, Chapter 29, Subchapter A, but is covered by the Rehabilitation Act of 1973.
- (F) A student who successfully completes a dual language immersion/two-way or dual language immersion/one-way program in accordance with §89.1210(d)(3) and (4) of this title (relating to Program Content and Design), §89.1227 of this title (relating to Minimum Requirements for Dual Language Immersion Program Model), and §89.1228 of this title (relating to Two-Way Dual Language Immersion Program Model Implementation) at an elementary school may satisfy one credit of the two credits required in a language other than English.
  - (i) To successfully complete a dual language immersion program, a student must:
    - (I) have participated in a dual language immersion program for at least five consecutive school years;
    - (II) achieve high levels of academic competence as demonstrated by performance of meets or masters grade level on both the mathematics and reading State of Texas Assessments of Academic Readiness (STAAR®) in English or Spanish, as applicable, in at least one grade level; and
    - (III) achieve proficiency in both English and a language other than English as demonstrated by scores of proficient or higher in the reading and speaking domains on language proficiency or achievement tests in both languages.
  - (ii) The second credit of a language other than English must be in the same language as the successfully completed dual language immersion program.
- (G) A student who successfully completes a course in American Sign Language while in elementary school may satisfy one credit of the two credits required in a language other than English.
- (6) Physical education--one credit.
  - (A) The required credit may be selected from one full credit or a combination of two half credits from two different courses from the following courses:
    - (i) Lifetime Fitness and Wellness Pursuits;
    - (ii) Lifetime Recreation and Outdoor Pursuits; and
    - (iii) Skill-Based Lifetime Activities.
  - (B) In accordance with local district policy, the required credit may be earned through completion of any Texas essential knowledge and skills-based course that meets the requirement in subparagraph (E) of this paragraph for 100 minutes of moderate to vigorous physical activity per five-day school week and that is not being used to satisfy another specific graduation requirement.
  - (C) In accordance with local district policy, credit for any of the courses listed in subparagraph (A) of this paragraph may be earned through participation in the following activities:
    - (i) Athletics;
    - (ii) Junior Reserve Officer Training Corps (JROTC); and

- (iii) appropriate private or commercially sponsored physical activity programs conducted on or off campus. The district must apply to the commissioner of education for approval of such programs, which may be substituted for state graduation credit in physical education. Such approval may be granted under the following conditions.
      - (I) Olympic-level participation and/or competition includes a minimum of 15 hours per week of highly intensive, professional, supervised training. The training facility, instructors, and the activities involved in the program must be certified by the superintendent to be of exceptional quality. Students qualifying and participating at this level may be dismissed from school one hour per day. Students dismissed may not miss any class other than physical education.
      - (II) Private or commercially sponsored physical activities include those certified by the superintendent to be of high quality and well supervised by appropriately trained instructors. Student participation of at least five hours per week must be required. Students certified to participate at this level may not be dismissed from any part of the regular school day.
  - (D) In accordance with local district policy, up to one credit for any one of the courses listed in subparagraph (A) of this paragraph may be earned through participation in any of the following activities:
    - (i) Drill Team;
    - (ii) Marching Band; and
    - (iii) Cheerleading.
  - (E) All substitution activities allowed in subparagraphs (B)-(D) of this paragraph must include at least 100 minutes per five-day school week of moderate to vigorous physical activity.
  - (F) Credit may not be earned more than once for the courses identified in subparagraph (A)(i) and (iii) of this paragraph. Credit may not be earned more than twice for the course identified in subparagraph (A)(ii) of this paragraph. No more than four substitution credits may be earned through any combination of substitutions allowed in subparagraphs (B)-(D) of this paragraph.
  - (G) A student who is unable to participate in physical activity due to disability or illness may substitute an academic elective credit (English language arts, mathematics, science, or social studies) or a course that is offered for credit as provided by the TEC, §28.002(g-1), for the physical education credit requirement. The determination regarding a student's ability to participate in physical activity will be made by:
    - (i) the student's ARD committee if the student receives special education services under the TEC, Chapter 29, Subchapter A;
    - (ii) the committee established for the student under Section 504, Rehabilitation Act of 1973 (29 United States Code, Section 794) if the student does not receive special education services under the TEC, Chapter 29, Subchapter A, but is covered by the Rehabilitation Act of 1973; or
    - (iii) a committee established by the school district of persons with appropriate knowledge regarding the student if each of the committees described by clauses (i) and (ii) of this subparagraph is inapplicable. This committee shall follow the same procedures required of an ARD or a Section 504 committee.
- (7) Fine arts--one credit.

- (A) The credit may be selected from the following courses subject to prerequisite requirements:
  - (i) Art, Level I, II, III, or IV;
  - (ii) Dance, Level I, II, III, or IV;
  - (iii) Music, Level I, II, III, or IV;
  - (iv) Music Studies;
  - (v) Theatre, Level I, II, III, or IV;
  - (vi) Musical Theatre, Level I, II, III, or IV;
  - (vii) Technical Theatre, Level I, II, III, or IV;
  - (viii) IB Film Standard or Higher Level;
  - (ix) Floral Design;
  - (x) Digital Art and Animation; and
  - (xi) 3-D Modeling and Animation.
- (B) In accordance with local district policy, credit may be earned through participation in a community-based fine arts program not provided by the school district in which the student is enrolled. The district must apply to the commissioner of education for approval of such programs, which may be substituted for state graduation credit in fine arts. Approval may be granted if the fine arts program provides instruction in the essential knowledge and skills identified for a fine arts course as defined by Chapter 117, Subchapter C, of this title (relating to High School, Adopted 2013).
- (c) Elective courses--five credits. The credits must be selected from the list of courses specified in §74.11(g) or (h) of this title (relating to High School Graduation Requirements) or from a locally developed course or activity developed pursuant to the TEC, §28.002(g-1), for which a student may receive credit and that does not satisfy a specific course requirement.
- (d) Substitutions. No substitutions are allowed in the Foundation High School Program, except as specified in this chapter.

§74.13. Endorsements.

- (a) A student shall specify in writing an endorsement the student intends to earn upon entering Grade 9.
- (b) A district shall permit a student to enroll in courses under more than one endorsement before the student's junior year and to choose, at any time, to earn an endorsement other than the endorsement the student previously indicated. This section does not entitle a student to remain enrolled to earn more than 26 credits.
- (c) A student must earn at least 26 credits to earn an endorsement.
- (d) A school district may define advanced courses and determine a coherent sequence of courses for an endorsement area, provided that prerequisites in Chapters 110-117, 127, and 130 of this title are followed.
- (e) To earn an endorsement a student must demonstrate proficiency in the following.
  - (1) The curriculum requirements for the Foundation High School Program as defined by §74.12 of this title (relating to Foundation High School Program).
  - (2) A fourth credit in mathematics that may be selected from one full credit or a combination of two half credits from two different courses, subject to prerequisite requirements, from the following courses:
    - (A) Algebra II;
    - (B) Precalculus;



- (C) Advanced Quantitative Reasoning;
  - (D) Independent Study in Mathematics;
  - (E) Discrete Mathematics for Problem Solving;
  - (F) Algebraic Reasoning;
  - (G) Statistics;
  - (H) a comparable Advanced Placement (AP) mathematics course that does not count toward another credit required for graduation;
  - (I) AP Computer Science A;
  - (J) International Baccalaureate (IB) Computer Science Higher Level;
  - (K) Engineering Mathematics;
  - (L) Statistics and Business Decision Making;
  - (M) Mathematics for Medical Professionals;
  - (N) Discrete Mathematics for Computer Science;
  - (O) pursuant to the Texas Education Code (TEC), §28.025(b-5), after the successful completion of Algebra II, a mathematics course endorsed by an institution of higher education as a course for which the institution would award course credit or as a prerequisite for a course for which the institution would award course credit. The Texas Education Agency (TEA) shall maintain a current list of courses offered under this subparagraph; and
  - (P) after the successful completion of Algebra I and Geometry, a locally developed mathematics course or other activity, including an apprenticeship or training hours needed to obtain an industry-recognized credential or certificate that is developed pursuant to the TEC, §28.002(g-1).
- (3) A student may complete a course listed in paragraph (2) of this subsection before or after completing a course listed in §74.12(b)(2)(A) of this title.
  - (4) The fourth mathematics credit may be a college preparatory mathematics course that is developed and offered pursuant to the TEC, §28.014.
  - (5) The fourth mathematics credit may be satisfied with one credit of a two-credit IB mathematics course selected from Chapter 111 of this title (relating to Texas Essential Knowledge and Skills for Mathematics) that does not count toward another credit required for graduation.
  - (6) An additional credit in science that may be selected from one full credit or a combination of two half credits from two different courses, subject to prerequisite requirements, from the following courses:
    - (A) Chemistry;
    - (B) Physics;
    - (C) Aquatic Science;
    - (D) Astronomy;
    - (E) Earth Systems Science;
    - (F) Environmental Systems;
    - (G) Specialized Topics in Science;
    - (H) a comparable AP science course that does not count toward another credit required for graduation;

- (I) Advanced Animal Science;
  - (J) Advanced Plant and Soil Science;
  - (K) Anatomy and Physiology;
  - (L) Medical Microbiology;
  - (M) Pathophysiology;
  - (N) Food Science;
  - (O) Forensic Science;
  - (P) Biotechnology I;
  - (Q) Biotechnology II;
  - (R) Physics for Engineering;
  - (S) Scientific Research and Design;
  - (T) Engineering Design and Problem Solving;
  - (U) Engineering Science;
  - (V) pursuant to the TEC, §28.025(b-5), after the successful completion of physics, a science course endorsed by an institution of higher education as a course for which the institution would award course credit or as a prerequisite for a course for which the institution would award course credit. The TEA shall maintain a current list of courses offered under this subparagraph;
  - (W) a locally developed science course or other activity, including an apprenticeship or training hours needed to obtain an industry-recognized credential or certificate that is developed pursuant to the TEC, §28.002(g-1);
  - (X) pursuant to the TEC, §28.025(c-3), a student pursuing an arts and humanities endorsement who has the written permission of the student's parent or a person standing in parental relation to the student may substitute a course that is not being used to satisfy another specific graduation requirement selected from:
    - (i) Chapter 110 of this title (relating to Texas Essential Knowledge and Skills for English Language Arts and Reading);
    - (ii) Chapter 113 of this title (relating to Texas Essential Knowledge and Skills for Social Studies);
    - (iii) Chapter 114 of this title (relating to Texas Essential Knowledge and Skills for Languages Other Than English); or
    - (iv) Chapter 117 of this title (relating to Texas Essential Knowledge and Skills for Fine Arts); and
  - (Y) credit may not be earned for both physics and Physics for Engineering to satisfy science credit requirements.
  - (Z) The fourth science credit may be satisfied with one credit of a two-credit IB science course selected from Chapter 112 of this title (relating to Texas Essential Knowledge and Skills for Science) that does not count toward another credit required for graduation.
- (7) Two additional elective credits that may be selected from the list of courses specified in §74.11(g) or (h) of this title (relating to High School Graduation Requirements).
- (f) A student may earn any of the following endorsements.
- (1) Science, technology, engineering, and mathematics (STEM). Students who entered high school prior to the 2022-2023 school year may earn a STEM endorsement by completing the

requirements specified in subsection (e) of this section, including Algebra II, chemistry, and physics or Physics for Engineering and:

- (A) a coherent sequence of courses for four or more credits in career and technical education (CTE) that consists of at least two courses in the same career cluster and at least one advanced CTE course. The courses may be selected from Chapter 127 of this title (relating to Texas Essential Knowledge and Skills for Career Development and Career and Technical Education) or CTE innovative courses. The final course in the sequence must be selected from Chapter 127, Subchapter O, of this title (relating to Science, Technology, Engineering, and Mathematics) as it existed prior to August 1, 2025, or Career Preparation I or II (Career Preparation General or Career Preparation for Programs of Study) and Project-Based Research (Career and Technical Education Project-Based Capstone) in Chapter 127, Subchapter B, of this title (relating to High School), if the course addresses a STEM-related field;
  - (B) courses required to complete a TEA-designated program of study related to STEM;
  - (C) three credits in mathematics by successfully completing Algebra II and two additional mathematics courses for which Algebra II is a prerequisite by selecting courses from subsection (e)(2) of this section;
  - (D) four credits in science by successfully completing chemistry, physics, and two additional science courses by selecting courses from subsection (e)(6) of this section; or
  - (E) in addition to Algebra II, chemistry, and physics, a coherent sequence of three additional credits from no more than two of the categories or disciplines represented by subparagraphs (A), (B), (C), and (D) of this paragraph.
- (2) Business and industry. Students who entered high school prior to the 2022-2023 school year may earn a business and industry endorsement by completing the requirements specified in subsection (e) of this section and:
- (A) a coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster and at least one advanced CTE course. The courses may be selected from Chapter 127 of this title or CTE innovative courses. The final course in the sequence must be selected from one of the following:
    - (i) Chapter 127, Subchapter C, of this title (related to Agriculture, Food, and Natural Resources);
    - (ii) Chapter 127, Subchapter D, of this title (relating to Architecture and Construction);
    - (iii) Chapter 127, Subchapter E, of this title (relating to Arts, Audio/Video Technology, and Communications);
    - (iv) Chapter 127, Subchapter F, of this title (relating to Business, Marketing, and Finance);
    - (v) Chapter 127, Subchapter H, of this title (relating to Energy);
    - (vi) Chapter 127, Subchapter K, of this title (relating to Hospitality and Tourism);
    - (vii) Chapter 127, Subchapter M, of this title (relating to Information Technology);
    - (viii) Chapter 127, Subchapter O, of this title (relating to Manufacturing);
    - (ix) Chapter 127, Subchapter P, of this title (relating to Transportation, Distribution, and Logistics); or
    - (x) Career Preparation I or II (Career Preparation General or Career Preparation for Programs of Study) and Project-Based Research (Career and Technical Education Project-Based Capstone) in Chapter 127, Subchapter B, of this title if

the course addresses a career from a field listed in clauses (i)-(ix) of this subparagraph;

- (B) courses required to complete a TEA-designated program of study related to business and industry;
  - (C) four English credits by selecting courses from Chapter 110 of this title to include three levels in one of the following areas:
    - (i) public speaking;
    - (ii) debate;
    - (iii) advanced broadcast journalism;
    - (iv) advanced journalism: newspaper;
    - (v) advanced journalism: yearbook; or
    - (vi) advanced journalism: literary magazine; or
  - (D) a coherent sequence of four credits from subparagraph (A), (B), or (C) of this paragraph.
- (3) Public services. Students who entered high school prior to the 2022-2023 school year may earn a public services endorsement by completing the requirements specified in subsection (e) of this section and:
- (A) a coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster and at least one advanced CTE course. The courses may be selected from Chapter 127 of this title or CTE innovative courses. The final course in the sequence must be selected from one of the following:
    - (i) Chapter 127, Subchapter G, of this title (relating to Education and Training);
    - (ii) Chapter 127, Subchapter J, of this title (relating to Health Science);
    - (iii) Chapter 127, Subchapter L, of this title (relating to Human Services);
    - (iv) Chapter 127, Subchapter N, of this title (relating to Law and Public Service); or
    - (v) Career Preparation I or II (Career Preparation General or Career Preparation for Programs of Study) and Project-Based Research (Career and Technical Education Project-Based Capstone) in Chapter 127, Subchapter B, of this title if the course addresses a field from a cluster listed in clauses (i)-(iv) of this subparagraph;
  - (B) courses required to complete a TEA-designated program of study related to public services; or
  - (C) four courses in Junior Reserve Officer Training Corps (JROTC).
- (4) Arts and humanities. A student may earn an arts and humanities endorsement by completing the requirements specified in subsection (e) of this section and:
- (A) five social studies credits by selecting courses from Chapter 113 of this title; or
  - (B) four levels of the same language in a language other than English by selecting courses in accordance with Chapter 114 of this title, which may include Advanced Language for Career Applications; or
  - (C) two levels of the same language in a language other than English and two levels of a different language in a language other than English by selecting courses in accordance with Chapter 114 of this title; or
  - (D) four levels of American sign language by selecting courses in accordance with Chapter 114 of this title; or

- (E) a coherent sequence of four credits by selecting courses from one or two categories or disciplines in fine arts from Chapter 117 of this title or innovative courses approved by the commissioner; or
  - (F) four English credits by selecting from the following:
    - (i) English IV; or
    - (ii) Independent Study in English; or
    - (iii) Literary Genres; or
    - (iv) Creative Writing; or
    - (v) Research and Technical Writing; or
    - (vi) Humanities; or
    - (vii) Communication Applications; or
    - (viii) AP English Literature and Composition; or
    - (ix) AP English Language and Composition; or
    - (x) IB Language Studies A: Language and Literature Standard Level; or
    - (xi) IB Language Studies A: Language and Literature Higher Level; or
    - (xii) IB Language Studies A: Literature Standard Level; or
    - (xiii) IB Language Studies A: Literature Higher Level; or
    - (xiv) IB Literature and Performance Standard Level.
- (5) Multidisciplinary studies. A student may earn a multidisciplinary studies endorsement by completing the requirements specified in subsection (e) of this section and:
- (A) four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence; or
  - (B) four credits in each of the four foundation subject areas to include chemistry and/or physics and English IV or a comparable AP or IB English course; or
  - (C) four credits in Advanced Placement, International Baccalaureate, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts.
- (6) STEM. Students who entered high school in the 2022-2023 school year or later may earn a STEM endorsement by completing the requirements specified in subsection (e) of this section, including Algebra II, chemistry, and physics or Physics for Engineering and:
- (A) courses required to be designated a CTE completer in one of the following TEA-approved programs of study related to STEM:
    - (i) biomedical sciences;
    - (ii) civil engineering;
    - (iii) cybersecurity;
    - (iv) electrical engineering;
    - (v) engineering foundations;
    - (vi) geospatial engineering and land surveying;
    - (vii) mechanical and aerospace engineering;
    - (viii) networking systems;

- (ix) nursing science;
  - (x) programming and software development;
  - (xi) renewable energy;
  - (xii) robotics and automation technology; or
  - (xiii) web development;
  - (B) three credits in mathematics by successfully completing Algebra II and two additional mathematics courses for which Algebra II is a prerequisite by selecting courses from subsection (e)(2) of this section;
  - (C) four credits in science by successfully completing chemistry, physics, and two additional science courses by selecting courses from subsection (e)(6) of this section; or
  - (D) in addition to chemistry, physics, and Algebra II, one additional mathematics course listed in subsection (e)(2) of this section for which Algebra II is a prerequisite and one additional science course listed in subsection (e)(6) of this section.
- (7) Business and industry. Students who entered high school in the 2022-2023 school year or later may earn a business and industry endorsement by completing the requirements specified in subsection (e) of this section and:
- (A) courses required to be designated a CTE completer in one of the following TEA-approved programs of study related to business and industry:
    - (i) accounting and financial services;
    - (ii) agriculture business, leadership, and communications;
    - (iii) agricultural technology and mechanical systems;
    - (iv) animal science;
    - (v) architectural drafting and design;
    - (vi) automotive and collision repair;
    - (vii) aviation maintenance;
    - (viii) aviation pilots;
    - (ix) business management;
    - (x) carpentry;
    - (xi) construction management and inspection;
    - (xii) cosmetology;
    - (xiii) culinary arts;
    - (xiv) diesel and heavy equipment maintenance and commercial drivers;
    - (xv) digital communications;
    - (xvi) distribution, logistics, and warehousing;
    - (xvii) drone (unmanned vehicle);
    - (xviii) electrical;
    - (xix) entrepreneurship;
    - (xx) environmental and natural resources;
    - (xxi) food science and technology;
    - (xxii) graphic design and interactive media;

- (xxiii) HVAC and sheet metal;
- (xxiv) industrial maintenance;
- (xxv) information technology support and services;
- (xxvi) lodging and resort management;
- (xxvii) manufacturing technology;
- (xxviii) maritime;
- (xxix) marketing and sales;
- (xxx) masonry;
- (xxxi) oil and gas exploration and production;
- (xxxii) plant science;
- (xxxiii) plumbing and pipefitting;
- (xxxiv) printing and imaging;
- (xxxv) real estate;
- (xxxvi) refining and chemical processes;
- (xxxvii) retail management;
- (xxxviii) travel, tourism, and attractions; or
- (xxxix) welding;

(B) courses required to be designated a CTE completer in one of the following TEA-approved programs of study related to business and industry, if the mathematics and science requirements for the STEM endorsement are not met:

- (i) civil engineering;
- (ii) cybersecurity;
- (iii) electrical engineering;
- (iv) engineering foundations;
- (v) geospatial engineering and land surveying;
- (vi) mechanical and aerospace engineering;
- (vii) networking systems;
- (viii) programming and software development;
- (ix) renewable energy;
- (x) robotics and automation technology; or
- (xi) web development; or

(C) four English credits by selecting courses from Chapter 110 of this title to include three levels in one of the following areas:

- (i) public speaking;
- (ii) debate;
- (iii) advanced broadcast journalism;
- (iv) advanced journalism: newspaper;
- (v) advanced journalism: yearbook; or

- (vi) advanced journalism: literary magazine.
- (8) Public services. Students who entered high school in the 2022-2023 school year or later may earn a public services endorsement by completing the requirements specified in subsection (e) of this section and:
  - (A) courses required to be designated a CTE completer in one of the following TEA-approved programs of study related to public services:
    - (i) biomedical science, if the mathematics and science requirements for the STEM are not met;
    - (ii) diagnostic and therapeutic services;
    - (iii) early learning;
    - (iv) exercise science, wellness, and restoration;
    - (v) family and community services;
    - (vi) fire science;
    - (vii) government and public administration;
    - (viii) health and wellness;
    - (ix) health informatics;
    - (x) law enforcement;
    - (xi) legal studies;
    - (xii) nursing science, if the mathematics and science requirements for the STEM are not met; or
    - (xiii) teaching and training; or
  - (B) four courses in Junior Reserve Officer Training Corps (JROTC).
- (g) A course completed as part of the set of four courses needed to satisfy an endorsement requirement may also satisfy a requirement under §74.12(b) and (c) of this title and subsection (e)(2), (4), (5), and (6) of this section, including an elective requirement. The same course may count as part of the set of four courses for more than one endorsement.