

Chapter 127. Texas Essential Knowledge and Skills for Career Development and Career and Technical Education

Subchapter B. High School

Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code, §§7.102(c)(4), 28.002, 28.00222, and 28.025, unless otherwise noted.

§127.13. Applied Mathematics for Technical Professionals (One Credit), Adopted 2015.

- (a) General requirements. This course is recommended for students in Grades 11 and 12. Recommended prerequisites: Algebra I and Geometry. This course satisfies a high school mathematics graduation requirement. Students shall be awarded one credit for successful completion of this course.
- (b) Introduction.
 - (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - (2) The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.
 - (3) Career development is a lifelong pursuit of answers to the questions: Who am I? Why am I here? What am I meant to do with my life? It is vital that students have a clear sense of direction for their career choice. Career planning is a critical step and is essential to success.
 - (4) Applied Mathematics for Technical Professionals uses problem-solving situations, hands-on activities, and technology to extend mathematical thinking and engage student reasoning. Situations relating to technical applications provide students opportunities to make connections with mathematics and the workplace. In addition, students will learn the skills necessary to communicate using mathematics. Hands-on activities will allow students to model, explore, and develop abstract concepts applicable to technical careers. (Essential to this course is the partnership between mathematics and technical teachers.)
 - (5) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
 - (6) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (c) Knowledge and skills.

- (1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - (A) apply mathematics to problems arising in everyday life, society, and the workplace;
 - (B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;
 - (C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - (D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
 - (E) create and use representations to organize, record, and communicate mathematical ideas;
 - (F) analyze mathematical relationships to connect and communicate mathematical ideas; and
 - (G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.
- (2) The student uses mathematical concepts of algebra to explain linear and non-linear applications in business and industry situations. The student is expected to:
 - (A) calculate rise and run such as the rise and run of stair stringers or roof pitch;
 - (B) distinguish the purpose and difference of a linear and non-linear increase and decrease of a variable with time such as cost or profit;
 - (C) write systems of equations and inequalities from real-life situations that compare "best deal opportunities" with profit and expenses in businesses;
 - (D) use linear programming to maximize or minimize linear objective function in real-life situations and determine the reasonableness of solutions;
 - (E) express numbers as powers of 10 in business and industry settings;
 - (F) determine the powers and roots of numbers;
 - (G) apply compound interest formulas related to operating a business; and
 - (H) use exponential decay models to determine the depreciation on equipment used in business and industry and explain the meaning of models.
- (3) The student applies geometric concepts to real-world problems in technical situations. The student is expected to:
 - (A) identify various geometric figures in order to identify what formulas are needed to solve situational problems;
 - (B) compute measurements such as area, surface area, volume, perimeter, and circumference in order to prepare engineering drawings for projects;
 - (C) use trigonometric functions such as sine, cosine, tangent, cotangent, cosecant, and secant to calculate angles and length of sides;
 - (D) apply Heron's formula for finding areas of triangles when the height is not known;
 - (E) determine how changing dimensions will affect the perimeter, area, surface area, or volume in a project;
 - (F) determine how angles will affect structural strength and stability;

- (G) apply right triangle relationships using the Pythagorean Theorem, special right triangles, and trigonometry for roof construction, building the frame of a car, or calculating machined parts;
 - (H) determine the materials needed for a job or project by finding missing parts of a circle;
 - (I) draw orthographic and isometric views and use them to produce engineering drawings;
 - (J) use cross-sections, including conic sections, of three-dimensional figures to relate to plane figures in specific detail on an engineered drawing; and
 - (K) explain and use auxiliary views, revolutions, intersections, and engineered drawings.
- (4) The student applies measurement to all aspects of business and industry occupations. The student is expected to:
- (A) use dimensional analysis to select an appropriate tool to make measurements;
 - (B) apply accurate readings of both U.S. customary and metric measuring devices to a problem situation;
 - (C) square, measure, and cut materials to specified dimensions;
 - (D) draw segments to scale using an accurate scale and measure segments that are drawn to scales;
 - (E) convert temperature values between Celsius and Fahrenheit in situations involving thermodynamics; and
 - (F) determine length, distance, area, surface area, volume, and weight with appropriate unit labels.
- (5) The student uses mathematical processes with graphical and numerical techniques to study patterns and analyze data related to finance. The student is expected to:
- (A) use rates and linear functions to solve problems involving finance and budgeting, including compensations and deductions;
 - (B) solve problems related to local, state, and federal taxes;
 - (C) analyze data to make decisions about banking and finance;
 - (D) use mathematical processes with algebraic formulas, numerical techniques, and graphs to solve problems related to job cost analysis;
 - (E) identify what parameters to change such as cost of materials, cost of labor, and work time required to improve the overall cost of a project; and
 - (F) identify the most reasonable mathematical solution using estimation.
- (6) The student applies mathematical processes to design a study and use graphical, numerical, and analytical techniques to communicate the results. The student is expected to:
- (A) interpret and present situations in terms of given graphs and that fit graphics;
 - (B) apply Ohm's Law and Kirchhoff's laws to troubleshoot electrical circuits;
 - (C) collect and organize data; make and interpret scatterplots; and model, predict, and make decisions and critical judgments; and
 - (D) prepare technical reports and presentations with visual media or models, including tables, graphs, and verbal descriptions.
- (7) The student applies mathematical principles of manufacturing processes. The student is expected to:
- (A) identify the line types used on engineering drawings;

- (B) identify selected symbols commonly used on engineering drawings;
- (C) identify the components of engineering drawings;
- (D) read, interpret, and create engineering drawings; and
- (E) use proper nomenclature when identifying engineering or manufacturing processes.

Source: The provisions of this §127.13 adopted to be effective August 28, 2017, 40 TexReg 6588.

§127.17. Career and Technical Education Standards in Occupational Safety and Health, Adopted 2023.

- (a) **Implementation.** The provisions of this section shall be implemented by school districts beginning with the 2023-2024 school year.
- (b) **General requirements.** These standards may not be offered as a standalone course. These standards shall be offered together with the essential knowledge and skills for the following career and technical education (CTE) courses:
 - (1) Construction Technology I;
 - (2) Electrical Technology I;
 - (3) Plumbing Technology I;
 - (4) HVAC Technology I;
 - (5) Masonry Technology I;
 - (6) Agriculture Mechanics and Metal Technology;
 - (7) Welding I;
 - (8) Metal Fabrication and Machining I;
 - (9) Oil and Gas Production II; and
 - (10) Introduction to Culinary Arts.
- (c) **Introduction.**
 - (1) CTE instruction provides content aligned with challenging academic standards, industry-relevant technical knowledge, Occupational Safety and Health Administration (OSHA) regulations, and college and career readiness skills for students to further their education and succeed in current and emerging professions.
 - (2) The goal of the occupational safety and health standards is to ensure that students develop safety consciousness in the workplace. Students build a strong foundation in the occupational safety and health concepts that are critical to protecting individuals in the workplace, increasing safety and health, and reducing the occurrence of job-related injuries and fatalities.
 - (3) These standards are required to be addressed in their entirety as part of each of the CTE principles courses identified in subsection (b) of this section.
 - (4) Successful completion of the standards may lead to a student earning a ten-hour general industry OSHA card. To earn the ten-hour OSHA card, the content must be taught by an authorized OSHA outreach training program trainer.
 - (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (d) **Knowledge and skills.** The student understands the foundations of occupational safety and health. The student is expected to:
 - (1) explain and discuss the responsibilities of workers and employers to promote safety and health in the workplace and the rights of workers to a secure workplace;

- (2) explain and discuss the importance of OSHA standards and OSHA requirements for organizations, how OSHA inspections are conducted, and the role of national and state regulatory entities;
- (3) explain the role industrial hygiene plays in occupational safety and explain various types of industrial hygiene hazards, including physical, chemical, biological, and ergonomic;
- (4) identify and explain the appropriate use of types of personal protective equipment used in industry;
- (5) discuss the importance of safe walking and working surfaces in the workplace and best practices for preventing or reducing slips, trips, and falls in the workplace;
- (6) describe types of electrical hazards in the workplace and the risks associated with these hazards and describe control methods to prevent electrical hazards in the workplace;
- (7) analyze the hazards of handling, storing, using, and transporting hazardous materials and identify and discuss ways to reduce exposure to hazardous materials in the workplace;
- (8) identify workplace health and safety resources, including emergency plans and Safety Data Sheets, and discuss how these resources are used to make decisions in the workplace;
- (9) describe the elements of a safety and health program, including management leadership, worker participation, and education and training;
- (10) explain the purpose and importance of written emergency action plans and fire protection plans and describe key components of each such as evacuation plans and emergency exit routes, list of fire hazards, and identification of emergency personnel;
- (11) explain the components of a hazard communication program; and
- (12) explain and give examples of safety and health training requirements specified by standard setting organizations.

Source: The provisions of this §127.17 adopted to be effective September 10, 2023, 48 TexReg 4851.

§127.19. Career and Technical Education Project-Based Capstone (One Credit), Adopted 2023.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year.
- (b) General requirements. This course is recommended for students in Grades 11 and 12. Students shall be awarded one credit for successful completion of this course. Students may repeat this course with different course content for up to three credits.
- (c) Introduction.
 - (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - (2) In Career and Technical Education Project-Based Capstone, students independently or collaboratively investigate real-world problems, issues, or interests. This course applies to a variety of career and technical education career clusters and programs of study.
 - (3) Career and Technical Education Project-Based Capstone is a course designed for students to develop and enhance essential skills while investigating real-world problems, issues, or interests. Students work independently or collaboratively with others within or across career clusters or programs of study. Students partner with mentor(s) or advisor(s) to develop a project. Students conduct research, compile findings, implement project activities appropriate to student contribution, and present their work to a relevant audience that may include industry experts. To attain academic success, students must have opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings to become productive and contributing members of society.

- (4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
 - (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (d) Knowledge and skills.
- (1) The student investigates independently or collaboratively a problem, issue, or interest within a selected profession or across disciplines to develop an independent or a collaborative project. The student is expected to:
 - (A) research and select a problem, issue, or interest within a selected profession or across disciplines for a personal enrichment or career development project;
 - (B) develop a problem statement, thesis statement, research question, or value proposition statement;
 - (C) identify and select a design or research process such as engineering design process, design thinking model, scientific discovery, or other industry-standard methodology;
 - (D) identify and select an appropriate audience for a problem, issue, or interest;
 - (E) identify key factors such as cost, feasibility, or time constraints necessary for successful development and implementation of a solution or plan; and
 - (F) identify key resources such as financial, intellectual, physical, human, and digital resources needed for development and implementation of a plan.
 - (2) The student identifies and develops key partnerships related to a problem, issue, or interest under the supervision of one or more mentors or advisors. The student is expected to:
 - (A) identify key stakeholders;
 - (B) research and select appropriate mentor(s) or advisor(s); and
 - (C) recruit appropriate collaborators, partners, or contributors.
 - (3) The student determines timeline goals for project completion and appropriate benchmarks to measure progress and success of a project. The student is expected to:
 - (A) identify and use effective communication strategies to use with mentor(s) or advisor(s) to provide updates and status reports;
 - (B) research and identify key performance indicators (KPI) that demonstrate successful progress of a project; and
 - (C) select appropriate method(s) to benchmark measurement of KPI such as a Gantt chart.
 - (4) The student develops a project management timeline for deliverables. The student is expected to:
 - (A) define the key activities necessary for successful implementation of a project;
 - (B) identify deliverable dates for key activities to support completion of a project within an established timeline; and
 - (C) develop and execute a plan to monitor and complete key deliverables.
 - (5) The student creates a risk analysis for a project. The student is expected to:
 - (A) identify potential risks such as financial, economic, regulatory, ethical, environmental, or legal risks associated with the design and implementation of the project and the end product; and
 - (B) evaluate and select methods to mitigate potential risks associated with a project.
 - (6) The student identifies necessary approvals required for a project. The student is expected to:

- (A) research and identify approval processes necessary to implement a project;
 - (B) prepare and present a proposal for project approval; and
 - (C) review feedback and revise an original proposal for a project as needed.
- (7) The student implements a project that meets standards recognized within a selected profession or across disciplines. The student is expected to:
- (A) complete a project plan that includes problem statement, thesis statement, research question, or value proposition statement; key partners; measurables; deliverables; risk analyses; and approvals;
 - (B) implement a plan for project completion;
 - (C) monitor and evaluate the progress of a project plan to determine whether modifications or changes are necessary;
 - (D) document all phases of a project plan; and
 - (E) report periodically on the progress of a project plan.
- (8) The student demonstrates an understanding of a selected problem, issue, or interest by explaining or justifying findings to an appropriate audience for public comment or professional response. The student is expected to:
- (A) identify an appropriate audience and coordinate the presentation of findings related to a selected problem, issue, or interest;
 - (B) present findings in a professional manner such as using concise language, engaging content, relevant media, and clear speech;
 - (C) evaluate feedback received from a presentation;
 - (D) evaluate the project's potential impact(s) on the identified problem, issue, or interest; and
 - (E) analyze and report on personal learning experiences such as essential skills gained, areas of personal growth, and challenges encountered throughout the project.

Source: The provisions of this §127.19 adopted to be effective February 13, 2024, 49 TexReg 696.

§127.20. Career Preparation General (Two Credits), Adopted 2023.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year.
- (b) General requirements. This course is recommended for students in Grades 11 and 12. Recommended prerequisite: at least one credit in a career and technical education course. Students shall be awarded two credits for successful completion of this course. This course may be related to or outside the student's program of study.
 - (1) A student may repeat this course one time for credit provided that the student is experiencing different aspects of an industry and demonstrating proficiency in additional and more advanced knowledge and skills.
 - (2) A student may not earn more than six credits for any combination of career preparation courses selected from Career Preparation General, Career Preparation for Programs of Study, and Extended Career Preparation.
- (c) Introduction.
 - (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.

- (2) Career planning is a critical step and is essential to success. Applying to multiple career and technical education clusters, the career preparation courses provide students with a framework for current employment and future career opportunities to become productive and contributing members of society.
 - (3) Career Preparation General provides opportunities for students to participate in a work-based learning environment that incorporates continuous collaborative feedback between the employer, teacher, and student. This course combines classroom instruction with business and industry employment experiences that may be outside the student's current program of study. The goal is for students to obtain entry-level employment developing a variety of skills for obtaining and maintaining employment. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.
 - (4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
 - (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (d) Knowledge and skills.
- (1) The student demonstrates professional employability skills to gain an entry-level position. The student is expected to:
 - (A) identify different methods to gain employment such as employer websites, job search engines, business locations, networking, and local open forums for job opportunities;
 - (B) identify and demonstrate essential workplace skills such as eye contact, professional greetings, punctuality, appropriate dress, and effective communication to gain employment;
 - (C) develop a cover letter and create a resume, curriculum vitae (CV), or portfolio;
 - (D) demonstrate proper interview techniques in a variety of situations;
 - (E) create pre-employment documents, including thank you letters, and post-employment documents, including a resignation letter with customary notice provisions;
 - (F) complete appropriate employment documents, including application, offer letter, I-9 form, and W-4 form; and
 - (G) describe the benefits of having a job and being self-sufficient.
 - (2) The student develops essential skills necessary for success in the workplace. The student is expected to:
 - (A) identify and model appropriate hygiene, grooming, and attire for various workplaces;
 - (B) demonstrate professionalism by being dependable, working hard, respecting authority, solving problems, taking initiative, communicating effectively, listening actively, and resolving conflicts;
 - (C) model appropriate workplace etiquette in physical and digital environments;
 - (D) demonstrate accountability by working with other employees to support the organization, completing assigned tasks and taking responsibility for mistakes; and
 - (E) demonstrate time management, including prioritizing work to fulfill responsibilities and meeting deadlines.
 - (3) The student applies academic skills to the workplace. The student is expected to:
 - (A) apply appropriate industry-specific mathematical skills;
 - (B) develop and analyze a personal budget for a variety of economic situations such as part-time and full-time employment;

- (C) interpret data from industry-specific tables, charts, and graphs to find solutions to problems;
 - (D) organize, write, and curate industry-specific documents and electronic communication using appropriate language;
 - (E) interpret and calculate information included in an earnings statement, including wages, Federal Insurance Contributions Act (FICA) deductions, taxes, and other benefits such as tips earned; and
 - (F) explain how debt affects financial stability.
- (4) The student exemplifies appropriate interpersonal skills in the workplace. The student is expected to:
- (A) explain how interpersonal skills affect human relations on the job;
 - (B) differentiate between characteristics of successful and non-successful working relationships;
 - (C) explain the importance of respecting the rights of others;
 - (D) explain how different personalities, experiences, and workstyles of employees can affect the workplace; and
 - (E) demonstrate professional verbal and nonverbal communication, including proper phone usage, body language, and interactions with customers and coworkers in person and online.
- (5) The student applies ethical codes of conduct and legal responsibilities within school and the workplace. The student is expected to:
- (A) research and explain workplace policies and procedures related to absence reporting, employee theft, sexual harassment, recognized holidays, workplace safety, acceptable use policy, jury duty, attendance and punctuality, drug-free workplace, and related consequences;
 - (B) demonstrate responsible behavior by following applicable workplace and school codes of conduct with integrity;
 - (C) discuss the importance of ethical behavior in the workplace such as treating others with respect, being honest, working to full potential, and developing a quality work product;
 - (D) summarize the importance of the Fair Labor Standards Act;
 - (E) describe the potential consequences of violating privacy laws related to Family Educational Rights and Privacy Act (FERPA), Health Insurance Portability and Accountability Act (HIPAA), and Children's Online Privacy Protection Rule (COPPA);
 - (F) research and explain the origins and legislative intent of the Civil Rights Act of 1964, Title VII, and the Education Amendments of 1972, Title IX, and the rights and responsibilities established by these laws; and
 - (G) research and describe laws and regulations related to a student's employment or a chosen industry or career.
- (6) The student applies concepts and skills related to safety in the workplace. The student is expected to:
- (A) identify and demonstrate safe working practices in the workplace;
 - (B) identify and illustrate solutions related to unsafe work practices;
 - (C) explain the importance of Occupational Safety and Health Administration regulations in the workplace; and

- (D) describe physical health and mental wellness practices that influence job performance.
- (7) The student evaluates personal attitudes, work habits, and skills that support job retention and advancement. The student is expected to:
 - (A) identify and develop effective leadership skills through participation in activities such as career and technical student organizations;
 - (B) identify appropriate certifications in the current employment position or desired occupational area;
 - (C) compare rewards and demands associated with various levels of employment in a variety of careers;
 - (D) investigate and compare career options by completing interest surveys, career aptitude tests, and skill inventories;
 - (E) generate short- and long-term Specific, Measurable, Attainable, Realistic, Time-Bound (SMART) goals for personal and career growth;
 - (F) research and explain methods for developing a growth mindset;
 - (G) summarize how to appropriately self-advocate in the workplace; and
 - (H) explain the impact of an employee self-evaluations, management performance evaluations, and employee feedback responses on personal job growth.
- (8) The student identifies skills and attributes necessary for professional success. The student is expected to:
 - (A) evaluate and compare career options, including salaries and benefits;
 - (B) describe how interests, abilities, personal priorities, and family responsibilities affect career choices;
 - (C) identify continuing education opportunities that enhance career advancement and promote lifelong learning;
 - (D) analyze the future employment outlook in an occupational area of interest;
 - (E) describe entrepreneurial opportunities in an occupational area of interest; and
 - (F) evaluate strategies for career retention and advancement in response to the changing global workforce.

Source: The provisions of this §127.20 adopted to be effective February 13, 2024, 49 TexReg 696.

§127.21. Career Preparation for Programs of Study (Two Credits), Adopted 2023.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year.
- (b) General requirements. This course is recommended for students in Grade 12. Prerequisite: at least one Level 2 or higher career and technical education course. Students shall be awarded two credits for successful completion of this course.
 - (1) A student's employment experience connected with this course must be related to the student's program of study.
 - (2) A student may repeat this course one time for credit provided that the student is experiencing different aspects of an industry and demonstrating proficiency in additional and more advanced knowledge and skills.
 - (3) A student may not earn more than six credits for any combination of career preparation courses selected from Career Preparation General, Career Preparation for Programs of Study, and Extended Career Preparation.

- (c) Introduction.
- (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - (2) Career planning is a critical step and is essential to success. Applying to multiple career and technical education clusters, the career preparation courses provide students with a framework for current employment and future career opportunities to become productive and contributing members of society.
 - (3) Career Preparation for Programs of Study provides additional opportunities for students to develop business and industry employment experiences, which must be related to the student's current program of study alongside advanced classroom instruction. The goal is to prepare students with a variety of skills to transition from job- to career-mindedness. This course provides a continuing focus on collaborative feedback between the employer, teacher, and student. Career Preparation for Programs of Study expands on Career Preparation General by increasing rigor, supporting student attainment of academic standards, and effectively preparing students for college and career success.
 - (4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
 - (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (d) Knowledge and skills.
- (1) The student applies and evaluates employability skills to improve the student's marketability within the workplace. The student is expected to:
 - (A) differentiate between a job and a career;
 - (B) refine an industry-specific professional portfolio or resume;
 - (C) identify appropriate sources for writing and obtain letters of recommendation;
 - (D) model proper interview skills based on a chosen career cluster;
 - (E) evaluate the effectiveness of various methods to gain employment;
 - (F) describe how having a job can lead to a career and self-sufficiency; and
 - (G) identify and explain work-based benefits such as health insurance, direct deposit, and retirement contributions.
 - (2) The student demonstrates essential skills necessary for success in the workplace. The student is expected to:
 - (A) maintain appropriate hygiene, grooming, and attire for the workplace;
 - (B) model appropriate workplace etiquette in physical and digital environments;
 - (C) justify time-management decisions to fulfill responsibilities and meet deadlines;
 - (D) analyze employer expectations by reflecting on evaluations;
 - (E) demonstrate effective listening skills used in the workplace through appropriate interactions with customers and coworkers; and
 - (F) cultivate and improve professionalism by continuously being dependable, working hard, respecting authority, solving problems, taking initiative, communicating effectively, and listening actively.
 - (3) The student applies and enhances academic knowledge and skills in the workplace. The student is expected to:

- (A) integrate mathematical concepts into business transactions such as counting inventory, calculating discounts, and conducting cash transactions;
 - (B) compare earning potential for careers within a selected program of study with personal financial goals;
 - (C) analyze and apply data from industry-specific tables, charts, or graphs to generate solutions to problems; and
 - (D) analyze and synthesize information from electronic communications, including forms, reports, or summaries.
- (4) The student demonstrates leadership qualities by applying work ethic, job expectations, multicultural considerations, and communication skills in the workplace. The student is expected to:
- (A) identify positive interpersonal skills, including conflict resolution, effective communication, and respect for all people, and model these skills as a mentor with peers;
 - (B) apply effective verbal, nonverbal, written, or electronic communication skills to a variety of audiences;
 - (C) define personal integrity and evaluate its effects on human relations in the workplace;
 - (D) classify a variety of working relationships into functional and dysfunctional characteristics; and
 - (E) participate in leadership and career-development activities related to a selected program of study.
- (5) The student models ethical codes of conduct and legal responsibilities within school and the workplace. The student is expected to:
- (A) evaluate provisions of the Fair Labor Standards Act;
 - (B) analyze the legal consequences of violating privacy laws related to Family Educational Rights and Privacy Act (FERPA), Health Insurance Portability and Accountability Act (HIPAA), and Children's Online Privacy Protection Act (COPPA);
 - (C) research and describe laws governing different professions within a selected program of study;
 - (D) analyze organizational policies and procedures and ethical standards from the student's current place of employment; and
 - (E) interpret and evaluate the rights and responsibilities of employers and employees.
- (6) The student applies concepts and skills related to safety in the workplace. The student is expected to:
- (A) research and describe different types of identity theft to identify associated risks and prevention strategies;
 - (B) identify and evaluate consequences of breach of personal and occupational safety practices in the workplace;
 - (C) model safe working practices at a training station;
 - (D) evaluate the impact of Occupational Safety and Health Administration regulations in the workplace; and
 - (E) analyze how physical health and mental wellness practices influence career longevity and satisfaction in a career within a selected program of study.
- (7) The student models the skills that support employment retention and advancement. The student is expected to:

- (A) create a personal growth plan that identifies relevant certifications, postsecondary opportunities, and technical skills required for various levels of employment based on a chosen career within a selected program of study and describe how to obtain them;
 - (B) develop short- and long-term Specific, Measurable, Attainable, Realistic, Time-Bound (SMART) goals based on personal and professional growth plans;
 - (C) analyze the rewards and demands of career advancement;
 - (D) model appropriate self-advocacy in various workplace scenarios;
 - (E) compare current employee performance evaluations to previous evaluations to identify areas of growth and opportunities for continued development; and
 - (F) evaluate and compare employment advancement considerations such as salaries, benefits, and qualifications.
- (8) The student analyzes postsecondary career opportunities within a selected program of study. The student is expected to:
- (A) research and compare declining and growth industries across career clusters;
 - (B) identify and analyze future job growth within a selected program of study based on societal needs;
 - (C) analyze the skills required to be successful in emerging industries;
 - (D) identify continuing education opportunities to determine education and training requirements for future careers within a selected program of study;
 - (E) research and evaluate entrepreneurial opportunities related to a selected program of study; and
 - (F) evaluate how personal priorities such as interests, abilities, and family responsibilities may influence career choice.

Source: The provisions of this §127.21 adopted to be effective February 13, 2024, 49 TexReg 696.

§127.22. Extended Career Preparation (One Credit), Adopted 2023.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year.
- (b) General requirements. This course is recommended for students in Grades 11 and 12. Corequisite: Career Preparation General or Career Preparation for Programs of Study. This course must be taken concurrently with Career Preparation General or Career Preparation for Programs of Study and may not be taken as a stand-alone course. Students shall be awarded one credit for successful completion of this course.
 - (1) A student may repeat this course one time for credit provided that the student is experiencing different aspects of an industry and demonstrating proficiency in additional and more advanced knowledge and skills.
 - (2) A student may not earn more than six credits for any combination of career preparation courses selected from Career Preparation General, Career Preparation for Programs of Study, and Extended Career Preparation.
- (c) Introduction.
 - (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - (2) Career planning is a critical step and is essential to success. Applying to multiple career and technical education clusters, the career preparation courses provide students with a framework for

current employment and future career opportunities to become productive and contributing members of society.

- (3) Extended Career Preparation is an enhancement and extension to Career Preparation General or Career Preparation for Programs of Study to provide additional opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences that may be outside the student's current program of study. The goal is to provide students additional time for deeper exploration of skills in the workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.
 - (4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
 - (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (d) Knowledge and skills.
- (1) The student demonstrates employability skills as required by business and industry. The student is expected to:
 - (A) identify and participate in training, education, or preparation for licensure, certification, or other relevant credentials to prepare for employment;
 - (B) complete work tasks with high standards to ensure delivery of quality products and services; and
 - (C) demonstrate and apply planning and time-management skills to work tasks.
 - (2) The student demonstrates essential skills for success in the workplace. The student is expected to:
 - (A) demonstrate and apply professional standards and personal qualities needed to be employable such as punctuality, initiative, patience, kindness, respect for authority, and cooperation;
 - (B) apply appropriate content knowledge, technical concepts, and vocabulary in the workplace;
 - (C) apply effective listening skills to obtain and clarify information in the workplace; and
 - (D) maintain appropriate hygiene, grooming, and attire in the workplace.
 - (3) The student applies and enhances academic knowledge and skills in the workplace. The student is expected to:
 - (A) employ critical-thinking skills to solve problems and make decisions; and
 - (B) analyze elements of a problem to develop creative and innovative solutions.
 - (4) The student exemplifies appropriate interpersonal and communication skills in the workplace. The student is expected to:
 - (A) demonstrate teamwork using conflict-management skills to achieve collective goals;
 - (B) apply verbal and non-verbal communication skills consistently in a manner that is clear, concise, and effective; and
 - (C) model effective internal and external communications to support work activities.
 - (5) The student models ethical codes of conduct and legal responsibilities within the workplace. The student is expected to:
 - (A) demonstrate a positive work ethic by performing assigned tasks as directed;
 - (B) model ethical reasoning in workplace situations;

- (C) comply with all applicable rules, laws, and regulations in the workplace; and
 - (D) research and explain the roles of the Equal Employment Opportunity Commission (EEOC) and the Texas Workforce Commission (TWC) in the workplace.
- (6) The student applies concepts and skills related to safety in the workplace. The student is expected to:
- (A) follow workplace safety rules and regulations consistently;
 - (B) operate tools and equipment used in the workplace safely;
 - (C) report and handle accidents and safety incidents according to workplace procedures as necessary; and
 - (D) describe and perform a hazard analysis of the workplace.
- (7) The student participates in a paid or an unpaid career preparation experience. The student is expected to:
- (A) conduct, document, and evaluate learning activities in a supervised employment experience;
 - (B) assess and report on advanced technical knowledge and skills related to the student's occupational objective and growth;
 - (C) evaluate strengths and weaknesses in technical skill proficiency; and
 - (D) document experiences related to the workplace and curate work samples.

Source: The provisions of this §127.22 adopted to be effective February 13, 2024, 49 TexReg 696.