

Career and Technical Education, Texas Essential Knowledge and Skills
Agriculture, Food, and Natural Resources Career Cluster
Agribusiness Program of Study
Work Group Final Recommendations

Prepared by the State Board of Education CTE TEKS Work Groups

Final Recommendations, January 2024

These recommendations reflect final recommendations for the career and technical education (CTE) Texas Essential Knowledge and Skills (TEKS) for the Agriculture, Food, and Natural Resources Career Cluster that have been recommended by State Board of Education’s TEKS work group for the Agribusiness Program of Study. Proposed additions are shown in green font with underlines (additions). Proposed deletions are shown in red font with strikethroughs (~~deletions~~). Text proposed to be moved from its current student expectation is shown in purple, italicized font with strikethrough (~~*moved text*~~) and is shown in the proposed new location in purple, italicized font with underlines (*new text location*).

Comments identified on the left-hand side link to explanations at the bottom of each page for the work group's proposed recommendations.

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§127.30. Principles of Agriculture, Food, and Natural Resources (One Credit), Adopted 2024.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2025-2026 school year.
- (b) General requirements. This course is recommended for students in Grades 9-12. Students shall be awarded one credit for successful completion of this course.
- (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) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products and resources.
 - (3) Principles of Agriculture, Food, and Natural Resources allows students to explore major areas of agriculture, food, and natural resources, including organizations, agribusiness leadership and communications, plant science, animal science, food science and technology, agricultural technology and mechanical systems, and environmental and natural resources. To prepare for careers in agriculture, food, and natural resources, students must attain academic knowledge and skills skills and knowledge, acquire technical knowledge and skills related to the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, experience, apply, and transfer their knowledge and skills in a variety of settings.
 - (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 standards/employability skills as required by business and industry. The student is expected to:
 - (A) identify career development, education, and entrepreneurship opportunities in the field of agriculture, food, and natural resources;
 - (B) identify and demonstrate interpersonal, problem-solving, and critical-thinking skills in agriculture, food, and natural resources;
 - (C) describe and demonstrate appropriate personal and occupational safety and health practices for the workplace;
 - (D) identify employers' expectations, including appropriate work habits, ethical conduct, and legal responsibilities;
 - (E) describe and demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership; and
 - (F) identify training, education, and certification requirements for occupational choices in agriculture, food, and natural resources.

- (2) The student develops a supervised agricultural experience program. The student is expected to:
- (A) plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity;
 - (B) use appropriate record-keeping skills in a supervised agricultural experience program;
 - (C) participate in youth agricultural leadership opportunities;
 - (D) review and participate in a local program of activities; and
 - (E) create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences.
- (3) The student identifies the impact of the agriculture industry in Texas and the United States. The student is expected to:
- comment¹(A) identify top agricultural commodities, exports, and imports in Texas and the United States; and
- (B) identify regions of commodity production such as corn, wheat, dairy, cattle, and cotton and explain the correlation between the region and the commodity.
- (4) The student explains the historical, current, and future significance of the agriculture, food, and natural resources industry. The student is expected to:
- (A) define agriculture and identify the sectors of the agricultural industry;
- comment²(B) analyze the impact-effect agriculture, food, and natural resources have on society;
- Comment³(C) identify and explain significant historical and current events that have impacted the and explain how they relate to the agricultural industry;
- Comment⁴(D) identify potential future scenarios, including potential global impacts for agriculture, food, and natural resources systems and their global impacts;
- (E) describe how emerging technologies such as online mapping systems, drones, and robotics impact agriculture, food, and natural resources; and
- (F) compare issues impacting agriculture, food, and natural resources such as biotechnology, employment, safety, environment, and animal welfare issues.
- (5) The student understands opportunities for leadership development in student organizations within agriculture, food, and natural resources. The student is expected to:
- (A) identify the history, structure, and development of and opportunities in the agriculture, food, and natural resources student organization(s) and opportunities within such organizations;
- (B) develop and demonstrate leadership and personal growth skills and collaborate with others to accomplish organizational goals and objectives; and
- (C) demonstrate use of parliamentary procedures when conducting meetings.
- (6) The student identifies opportunities for involvement in professional agricultural organizations. The student is expected to:
- (A) discuss the role of agricultural organizations in formulating public policy;
- (B) develop strategies for effective participation in agricultural organizations; and

¹ SBOE feedback

² Clarifying vocabulary

³ Clarify SE

⁴ Redundant; clarify SE intent

- (C) identify and discuss the purpose of various professional agricultural organizations.
- (7) The student demonstrates skills related to agribusiness, leadership, and communications. The student is expected to:
- (A) demonstrate written and oral communication skills appropriate for formal and informal situations such as prepared and extemporaneous presentations;
 - (B) identify and demonstrate effective customer service skills, including appropriate listening techniques and responses; and
 - (C) explain the impact of marketing and advertising on the agricultural industry.
- comment⁵(8) The student applies a scientific process ~~appropriate research methods~~ to agriculture, food, and natural resources topics. The student is expected to:
- Comment⁶(A) identify and discuss major innovations ~~research and developments~~ in the fields of agriculture, food, and natural resources;
- (B) identify and select an important agricultural issue, question or principle ~~explain scientific practices~~;
 - (C) develop and test a hypothesis for the selected topic;
 - (D)(E) collect and analyze data for the selected agricultural issue, question or principle ~~apply scientific practices to independent research~~; and
 - (E)(D) present findings and conclusions based on research performed using scientific practices.
- (9) The student applies problem-solving, mathematical, and organizational skills to maintain financial or logistical records. The student is expected to:
- (A) identify the components of and develop a formal business plan for an agricultural enterprise; and
 - (B) develop, maintain, and analyze records for an agricultural enterprise.
- (10) The student develops technical knowledge and skills related to plant and soil systems. The student is expected to:
- (A) define plant and soil science and analyze the relevance of horticulture, agronomy, forestry, and floriculture;
 - (B) identify the components and properties of soils;
 - (C) describe the basic structure and functions of plant parts;
 - (D) identify and apply techniques related to plant germination, growth, and development; and
 - (E) identify and use tools, equipment, and personal protective equipment common to plant and soil systems.
- (11) The student develops technical knowledge and skills related to animal systems. The student is expected to:
- (A) define animal science and analyze the relevance of selection, production, and marketing in the industry;
 - (B) define the roles and benefits of animals in agriculture;
 - (C) identify basic external anatomy of animals in agriculture;
 - (D) identify and classify breeds of livestock; and

⁵ To clarify the scientific process

⁶ Strengthen and clarify SE

- (E) identify and use tools, equipment, and proper handling techniques related to animal systems.
- (12) The student describes the principles of food products and processing systems. The student is expected to:
 - (A) identify food products and processing systems;
 - (B) identify emerging technologies and trends in global food production;
 - (C) compare various food labels;
 - (D) discuss current issues in food production; and
 - (E) use tools, equipment, and personal protective equipment common to food products and processing systems.
- (13) The student safely performs skills related to agricultural technology and mechanical systems. The student is expected to:
 - (A) identify the major disciplines of agricultural technology and mechanical systems;
 - (B) demonstrate basic measuring practices with accuracy;
 - (C) create a bill of materials and a technical drawing for a proposed agricultural engineering project;
 - (D) identify common building tools, materials, and fasteners; and
 - (E) identify and use tools, equipment, and personal protective equipment common to agricultural technology and mechanical systems.
- (14) The student explains the principles of environmental and natural resources. The student is expected to:
 - comment⁷(A) identify natural resources of economic importance to Texas agriculture ~~in Texas~~;
 - Comment⁸(B) explain ~~discuss~~ the relationship between agriculture and environmental and natural resources;
 - comment⁹(C) identify and describe regulations and governmental programs related to environmental and natural resources, including ~~such as~~ water regulations, pesticide usage, and ~~or~~ hunting and fishing laws;
 - comment¹⁰(D) identify and compare alternative energy sources that stem from or impact environmental and natural resources; and
 - (E) identify and compare energy and water conservation methods.

⁷ SBOE feedback

⁸ Strengthen SE

⁹ Advisor feedback

¹⁰ SBOE feedback

§127.45. Professional Standards and Communication in Agribusiness (One Credit), Adopted 2024.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2025-2026 school year.
- (b) General requirements. This course is recommended for students in Grades 10-12. Recommended prerequisite: Principles of Agriculture, Food, and Natural Resources. Students shall be awarded one credit for successful completion of this course.
- (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) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
 - (3) Professional Standards and Communication in Agribusiness focuses on leadership, communication, employer-employee relations, and problem solving as they relate to agribusiness. To prepare for careers in agribusiness systems, students must attain academic ~~skills~~ **knowledge and skills**, acquire technical knowledge and skills related to leadership development and communications in agriculture, and develop knowledge and skills regarding agricultural career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.
 - (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 standards/employability skills as required by business and industry. The student is expected to:
 - (A) identify career development, education, and entrepreneurship opportunities in the field of agribusiness;
 - (B) identify and demonstrate interpersonal, problem solving, and critical thinking skills used in agriculture, food, and natural resources industries;
 - (C) describe and demonstrate appropriate personal and occupational safety and health practices for the workplace;
 - (D) identify employers' expectations, including appropriate work habits, ethical conduct, and legal responsibilities;
 - (E) describe and demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership; and
 - (F) identify training, education, and certification requirements for occupational choices.
 - (2) The student develops a supervised agricultural experience program. The student is expected to:
 - (A) plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity;
 - (B) apply proper record-keeping skills as they relate to the supervised agricultural experience;

- (C) participate in youth agricultural leadership opportunities;
 - (D) review and participate in a local program of activities; and
 - (E) create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences.
- comment¹(3) The student analyzes ~~understands~~ the professional development skills needed to be an effective leader in agribusiness. The student is expected to:
- (A) describe the importance of positive self-concept, social skills, and maintaining a professional image;
 - (B) identify various leadership styles;
 - (C) prepare personal resumes, letters of interest, employment applications, and follow-up communications related to the hiring process; and
 - (D) explain the interpersonal skills needed to work cooperatively with others from different cultures, genders, and backgrounds.
- (4) The student evaluates employer and employee responsibilities for occupations in agriculture, food, and natural resources. The student is expected to:
- (A) identify and discuss work-related and agribusiness-related ethics;
 - (B) identify and practice job interview skills; and
 - (C) outline complaint and appeal processes in the workplace.
- (5) The student communicates effectively through various mediums with groups and individuals. The student is expected to:
- (A) identify elements of communication such as accuracy, relevance, rhetoric, and organization in informal, group discussions; formal presentations; and business-related, technical communication;
 - (B) describe how the style and content of spoken language varies in different contexts and influences the listener's understanding;
 - (C) evaluate aspects of presentations such as delivery, vocabulary, length, and purpose and modify based on audience;
 - (D) identify appropriate professional communications in agribusiness such as correct usage of grammar and punctuation;
 - (E) demonstrate the importance of communicating factual and unbiased data and information obtained from reliable sources;
 - (F) identify and demonstrate nonverbal communication skills and effective listening strategies; and
 - (G) discuss the importance of relationships and group organization.
- (6) The student understands the dynamics of group collaboration. The student is expected to:
- (A) define the significance of personal and group goals;
 - (B) apply various leadership traits to solve problems when leading a group;
 - (C) discuss the importance of time management and teamwork;
 - (D) outline the steps in the decision-making and problem-solving processes; and
 - (E) demonstrate a working knowledge of parliamentary procedures.

¹ Advisor feedback

- (7) The student applies principles of design in visual media as it relates to agriculture. The student is expected to:
- (A) explain the purpose of visual media;
 - (B) identify principles of design for visual media;
 - (C) create designs for a targeted purpose such as web design or print design in agribusiness; and
 - (D) interpret, evaluate, and justify artistic decisions in visual media related to agribusiness.
- (8) The student demonstrates journalistic writing in agriculture. The student is expected to:
- (A) differentiate news, feature, and opinion writing;
- Comment²(B) ~~identify~~create different forms of journalistic writing such as feature story, press release, and editorials; and
- Comment³(C) ~~identify and complete the steps to create draft~~ different forms of journalistic writing for a topic in agribusiness through use of the drafting process, including ~~selecting a layout selection, and revisions~~ revising, and editing ~~copy~~.
- (9) The student identifies new media being used in agriculture. The student is expected to:
- Comment⁴(A) identify effective use of emerging technology in agriculturalle communications;
- (B) propose a media campaign for an agricultural product or business;
 - (C) distinguish between appropriate and inappropriate uses of media; and
 - (D) practice digital citizenship.
- Comment⁵(10) The student examines media laws and ethics related to agriculturalle communications. The student is expected to:
- (A) define free speech, free press, defamation, and libel within communications;
- Comment⁶(B) apply media laws and policies to agricultural communications;
- Comment⁷(C) identify and discuss ethical considerations related to media; and
- (D) evaluate and practice safe, legal, and responsible use of communication technologies.
- Comment⁸(11) The student examines crisis management and risk communication in agriculturalle communications. The student is expected to:
- (A) differentiate between crisis and risk communication;
 - (B) create an outline for a crisis communication plan in agriculture; and
 - (C) analyze communication techniques, relevant communication networks, and organization communication strategies before, during, and after a crisis.

² Scaffold skills needed within the SE

³ Clarify SE with scaffolding from 8.B.

⁴ Used as an adjective

⁵ Used as an adjective

⁶ Clarify SE

⁷ Create a more measurable student outcome

⁸ Used as an adjective

§127.46. Agribusiness Management and Marketing (One Credit), Adopted 2024.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2025-2026 school year.
- (b) General requirements. This course is recommended for students in Grades 10-12. Recommended prerequisite: Principles of Agriculture, Food, and Natural Resources. Students shall be awarded one credit for successful completion of this course.
- (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) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
 - (3) Agribusiness Management and Marketing is designed to provide a foundation to agribusiness management and the free enterprise system. Instruction includes the use of economic principles such as supply and demand, budgeting, record keeping, finance, risk management, business law, marketing, and careers in agribusiness. To prepare for careers in agribusiness systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to agribusiness marketing and management and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.
 - (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 standards/employability skills as required by business and industry. The student is expected to:
 - (A) identify career and entrepreneurship opportunities for a chosen occupation in the field of agribusiness systems science and develop a plan for obtaining the education, training, and certifications required;
 - (B) model professionalism by continuously exhibiting appropriate work habits, solving problems, taking initiative, communicating effectively, listening actively, and thinking critically;
 - (C) model appropriate personal and occupational safety and health practices and explain the importance of established safety and health protocols for the workplace;
 - (D) analyze and interpret the rights and responsibilities, including ethical conduct and legal responsibilities, of employers and employees; and
 - (E) analyze the importance of exhibiting good citizenship and describe the effects of good citizenship on the development of home, school, workplace, and community.
 - (2) The student develops a supervised agricultural experience program. The student is expected to:
 - (A) plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity;
 - (B) use appropriate record-keeping skills in a supervised agricultural experience program;

- (C) participate in youth agricultural leadership opportunities;
 - (D) review and participate in a local program of activities; and
 - (E) create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences.
- (3) The student recognizes and explains roles within organizations, inter-organizational systems, and the larger environment. The student is expected to:
- (A) identify how organizational systems affect performance and the quality of products and services related to agriculture, food, and natural resources;
 - (B) research and describe the global context of agricultural industries and careers;
 - (C) describe the nature and types of agribusiness organizations; and
 - (D) identify the sectors of agribusiness such as production, processing, and distribution.
- (4) The student examines critical aspects of career opportunities in one or more agriculture, food, and natural resources careers. The student is expected to:
- (A) research job descriptions for one or more careers in agriculture, food, and natural resources and analyze labor market trends for the selected career(s); and
 - (B) identify educational and credentialing requirements for one or more careers in agriculture, food, and natural resources.
- (5) The student defines and examines agribusiness management and marketing and its importance to agriculture and the economy. The student is expected to:
- (A) describe different roles and functions of management and leadership in agribusiness;
 - (B) analyze the impact of management and marketing on the production, processing, and distribution of agricultural products;
 - comment¹(C) identify key economic principles of free enterprise ~~and how they impact agribusiness~~;
 - (D) explain the impact of key economic principles in agribusiness;
 - (E)(D) analyze the economic opportunities of agribusiness in a selected market or region; and
 - (F)(E) identify how agribusiness management and marketing impact consumer and market trends.
- (6) The student explains the importance of maintaining records and budgeting in agribusiness. The student is expected to:
- (A) maintain and analyze agribusiness records such as payroll, employee benefits, inventories, financial statements, and balance sheets to make informed business decisions;
 - (B) research and identify loan and financing opportunities in agribusiness;
 - (C) compare methods of capital resource acquisition as it pertains to agriculture; and
 - (D) apply a cost-benefit analysis to a budget for an agricultural business.
- (7) The student describes issues related to government policy and seeks opportunities to eliminate barriers for all stakeholders. The student is expected to:
- (A) analyze methods of decision making;

¹ To clarify SE

- Comment²(B) identify and examine the effects of government policies and regulations in making management decisions;
- comment³(C) describe the role of human resources in ensuring equality equity in the workplace;
- (D) identify employee rights and laws pertaining to the workplace; and
- comment⁴(E) identify the rights and responsibilities of land and property ownership laws pertaining to land and property ownership, such as uses, taxes, wills, and liabilities.
- (8) The student describes the marketing of agricultural products. The student is expected to:
- (A) describe the purpose and importance of marketing agricultural products;
- (B) develop a marketing plan for an agricultural business or product;
- (C) compare various agribusiness markets and influence factors;
- (D) identify methods used in agriculture for managing risk; and
- comment⁵(E) identify and analyze ~~analyze and identify~~ trends in agricultural commodity markets.
- (9) The student understands the efficiency aspects of agribusiness management. The student is expected to:
- Comment⁶(A) develop agricultural management and financial documents using management software or information technology ~~use management software and information technology to create agricultural management and financial documents such as spreadsheets and databases;~~
- (B) identify components of and develop an agribusiness entrepreneurial plan;
- (C) identify components of and develop an agribusiness financial management plan; and
- (D) create and present an agriculture business proposal.

² Increase SE measurability

³ SBOE feedback

⁴ To clarify SE

⁵ To clarify SE

⁶ Clarify intent and strengthen SE

§127.47. Agricultural Leadership, Research, and Communications (One Credit), Adopted 2024.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2025-2026 school year.
- (b) General requirements. This course is recommended for students in Grades 10-12. Prerequisite: one credit from the courses in the Agriculture, Food, and Natural Resources Career Cluster. Recommended prerequisite: Principles of Agriculture, Food, and Natural Resources. Students shall be awarded one credit for successful completion of this course.
- (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) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
 - comment¹(3) Agricultural Leadership, Research, and Communications focuses on challenging ~~agriculture, food, and natural resources~~ students to use higher level thinking skills, develop leadership abilities, ~~employ standard research principles~~, and develop and communicate agricultural positions effectively with all stakeholders. To prepare for careers in agriculture, food, and natural resources, students must attain academic knowledge and skills ~~skills and knowledge~~, acquire technical knowledge and skills related to the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and applying technologies in a variety of settings.
 - (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 standards/employability skills as required by business and industry. The student is expected to:
 - (A) identify career and entrepreneurship opportunities for a chosen occupation in the field of agriculture and develop a plan for obtaining the education, training, and certifications required for the chosen occupation;
 - (B) model professionalism by continuously exhibiting appropriate work habits, solving problems, taking initiative, communicating effectively, listening actively, and thinking critically;
 - (C) model appropriate personal and occupational safety and health practices and explain the importance of established safety and health protocols for the workplace;
 - (D) analyze and interpret the rights and responsibilities, including ethical conduct and legal responsibilities, of employers and employees; and
 - (E) analyze the importance of exhibiting good citizenship and describe the effects of good citizenship on the development of home, school, workplace, and community.

¹ Clarifying

- (2) The student develops a supervised agricultural experience program. The student is expected to:
- (A) plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity;
 - (B) use appropriate record-keeping skills in a supervised agricultural experience program;
 - (C) participate in youth agricultural leadership opportunities;
 - (D) review and participate in a local program of activities; and
 - (E) create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences.
- (3) The student researches the qualities and characteristics of effective leaders within the agricultural industry. The student is expected to:
- Comment²(A) identify past agricultural leaders, explain ~~their~~ contributions made by the leaders, and define the impact of the ~~how their~~ contributions on ~~affected~~ the agricultural industry;
- (B) compare characteristics of effective leaders and explain how these traits enabled them to enact meaningful change; and
- Comment³(C) analyze and present the leadership skills of a present-day leader in the field of agriculture ~~and present findings~~.
- (4) The student describes organizational leadership structures at the local, state, and national levels. The student is expected to:
- Comment⁴(A) identify agricultural or governmental leadership positions in the local community and at the state and national levels, and explain and evaluate ~~their roles~~ how individuals in leadership positions and decisions made by leadership impact the agricultural industry; ~~and determine how their decisions affect production agriculture~~;
- Comment⁵~~(B)~~ ~~identify agricultural leadership positions at the state and national levels, explain their roles, and evaluate their impact~~;
- (B) ~~(C)~~ define and analyze the processes by which laws, regulations, and policies are developed at the local, state, and national levels; and
- Comment⁶(C) ~~(D)~~ evaluate a recent law affecting agriculture, food, and natural resources and analyze ~~its~~ the impact of recent law on local agriculture. ~~;~~ and
- ~~⁷(E) identify the format used by local, state, or national government in developing legislation.~~
- (5) The student develops skills needed to participate effectively in an organizational meeting. The student is expected to:
- comment⁸(A) describe ~~investigate~~ parliamentary laws, motions, and other procedures;
- comment⁹(B) apply parliamentary procedures to conduct organizational ~~business~~ meetings;
- (C) debate and discuss issues in a clear, concise, and professional manner;
- (D) serve as presiding officer over an actual or mock organizational meeting; and

² Clarify SE
³ Clarify SE
⁴ Clarify SE
⁵ Combined with SE 4.A
⁶ Clarifying SE
⁷ Clarifying wording
⁸ Clarifying wording
⁹ SBOE feedback

- Comment¹⁰(E) analyze an organizational meeting such as a chapter, district, area, or state meeting or local board meeting and make recommendations to increase an organizational meeting's ~~its~~ overall efficiency and effectiveness.
- (6) The student demonstrates an agriculture-related technical skill to stakeholders. The student is expected to:
- (A) examine the components of an effective skills demonstration and create a list of essential characteristics;
- (B) identify an agricultural skill, develop detailed instructions for performing that skill, and demonstrate the skill with proficiency;
- Comment¹¹(C) analyze the performance of a pre-identified skill and make recommendations to increase the performance for ~~its~~ overall efficiency and effectiveness; and
- (D) evaluate the relevance of real-world applications for the demonstration process.
- comment¹²(7) The student asks questions, identifies problems, and conducts investigations to answer questions ~~or design solutions~~ in agriculture. The student is expected to:
- (A) explain ~~identify~~ the importance of using scientific processes ~~practices~~;
- (B) ask questions and define problems based on observations or data;
- (C) collect, organize, and analyze quantitative and qualitative data; and
- (D) present findings and conclusions based on research performed using scientific processes ~~practices~~.
- comment¹³(8) The student examines the use of logic in debate and; analysis, ~~and dissemination~~ of current issues impacting the agricultural community. The student is expected to:
- (A) identify the rules and responsibilities of the affirmative and negative positions in a debate;
- Comment¹⁴(B) ~~use a variety of approaches to~~ construct logical affirmative and negative cases in a debate using a variety of approaches; and
- comment¹⁵(C) present an argument free of logical fallacies on a current agricultural issue.
- comment¹⁶(9) The student examines an agricultural topic to develop an advocacy communication plan, ~~identifies a controversial topic related to agriculture and develops an advocacy plan and presentation~~. The student is expected to:
- comment¹⁷(A) identify and research ~~research and identify~~ controversial areas of agriculture such as property rights, water rights, high fencing, cloning, and growth supplements;
- (B) identify ~~explain~~ and analyze all sides of a controversial agricultural issue; ~~and~~
- (C) develop an advocacy plan accounting for supporting and opposing arguments ~~and present the plan to diverse constituents;~~ ~~and~~
- (D) present the advocacy communication plan to an audience.

¹⁰ Clarify SE

¹¹ Clarify SE

¹² Clarifying wording

¹³ Clarify KS purpose

¹⁴ Clarify SE

¹⁵ Clarifying SE

¹⁶ Clarify KS purpose

¹⁷ Clarifying SE

- (10) The student presents and communicate ~~disseminates~~ agricultural information using various media. The student is expected to:
- comment¹⁸(A) identify historical and current ~~traditional~~ media outlets;
 - (B) research and write agricultural articles for publication in print media outlets;
 - comment¹⁹(C) develop and record scripts for radio broadcasts or podcast productions ~~to and~~ effectively communicate agricultural information using ~~audio~~ technology;
 - Comment²⁰(D) develop scripts for video broadcasts and communicate agricultural information effectively usinge a video broadcast ~~to communicate agricultural information;~~
 - ²¹comment(E) examine and critique various ~~new~~ media platforms; and
 - comment²²(F) communicate ~~disseminate~~ agricultural information in a responsible, professional manner via ~~new~~ media.
- (11) The student communicates ~~disseminates~~ agricultural information by means of ~~via~~ presentations to groups of various sizes. The student is expected to:
- (A) select appropriate tone, language, and content for an intended audience;
 - (B) plan, develop, and deliver effective presentations; and
 - comment²³(C) critique ~~group or self-critique~~ agricultural presentations through an examination of logical structure, smooth transitions, accurate evidence, and well-chosen details presentations.
- (12) The student evaluates and critiques ~~diverse~~ agricultural informational resources. The student is expected to:
- (A) identify processes used in the evaluation of a variety of ~~diverse~~ agricultural resources;
 - comment²⁴(B) evaluate ~~identify industry positions that require professional judgments on~~ agricultural resources for credibility, bias, and accuracy;
 - Comment²⁵(C) compare, ~~contrast~~, and evaluate agricultural resources and make professional decisions using reliable methods of approach; and
 - (D) explain and defend decisions made on the evaluation of agricultural resources.
- (13) The student understands the importance of agricultural education. The student is expected to:
- comment²⁶(A) identify and examine historical and present-day agricultural education;
 - comment²⁷(B) identify and research individuals ~~persons~~, governmental agencies, and advocacy groups that are responsible for agricultural information dissemination and ~~agricultural~~ education; and
 - (C) explain the importance of agricultural education.

¹⁸Clarifying SE

¹⁹SBOE feedback

²⁰Clarify SE

²¹Broaden SE

²²Broaden SE to include all forms of media

²³tighten SE; CCRS:ELAR III speaking B3

²⁴Clarify the need for evaluation of resources

²⁵Removed “contrast” as it is redundant

²⁶Broaden SE

²⁷Broaden SE

§127.86. Practicum in Agriculture, Food, and Natural Resources (Two Credits), Adopted 2024.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2025-2026 school year.
- (b) General requirements. This course is recommended for students in Grades 11 and 12. The practicum course is a paid or an unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster. Prerequisite: a minimum of two credits with at least one course in a Level 2 or higher course from the Agriculture, Food, and Natural Resources Career Cluster. Students shall be awarded two credits for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.
- (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) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products and resources.
 - (3) Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. To prepare for careers in agriculture, food, and natural resources, students must attain academic ~~knowledge and skills~~ ~~skills and knowledge~~, acquire technical knowledge and skills related to the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.
 - (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 standards/employability skills as required by business and industry. The student is expected to:
 - (A) adhere to policies and procedures;
 - (B) demonstrate positive work behaviors, including punctuality, time management, initiative, and cooperation;
 - (C) apply constructive criticism and critical feedback from supervisor and peers to work performance;
 - (D) apply ethical reasoning to a variety of situations in order to make ethical decisions;
 - ~~(E) complete tasks with high standards to ensure quality products and services;~~
 - ~~(E)(F)~~ model professional appearance, including using appropriate dress, grooming, and personal protective equipment;

Comment¹ ~~(E)~~ ~~(G)~~ comply with ~~practicum setting~~ safety rules and regulations to maintain safe working conditions and environments;

~~(G)~~ ~~(H)~~ demonstrate a positive and productive work ethic by performing assigned tasks as directed; and

~~(H)~~ ~~(I)~~ comply with all applicable rules, laws, and regulations in a consistent manner.

- (2) The student develops a supervised agricultural experience program. The student is expected to:
- (A) plan, propose, conduct, document, and evaluate a supervised agricultural experience program;
 - (B) use appropriate record-keeping skills in a supervised agricultural experience program;
 - (C) participate in youth agricultural leadership opportunities;
 - (D) review and participate in a local program of activities; and
 - (E) create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences.
- (3) The student applies concepts of critical thinking and problem solving. The student is expected to:
- (A) analyze elements of a problem to develop creative and innovative solutions in the agricultural workplace;
 - (B) compare alternative ways to solve a problem in the agricultural workplace; and
 - (C) analyze data to inform agriculture operational decisions or activities.
- (4) The student demonstrates leadership and teamwork skills to accomplish goals and objectives. The student is expected to:
- (A) analyze leadership characteristics such as trustworthiness, positive attitude, integrity, and work ethic;
- Comment² ~~(B)~~ ~~demonstrate teamwork skills through working cooperatively with others to achieve tasks in the agricultural workplace;~~
- (C) demonstrate teamwork processes such as team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution in the agricultural workplace;
 - (D) demonstrate responsibility for shared group and individual work tasks in the agricultural workplace;
- Comment³ ~~(E)~~ establish and maintain effective working relationships using interpersonal skills ~~in order~~ to accomplish objectives ~~and tasks~~; and
- (F) demonstrate respect for all individuals.
- (5) The student demonstrates oral and written communication skills in creating, expressing, and interpreting information and ideas, including technical terminology and information. The student is expected to:
- (A) apply appropriate content knowledge, technical concepts, and vocabulary to analyze information and follow directions;
 - (B) use professional communication skills when receiving and conveying information in the agricultural workplace;

¹ Clarify the SE

² Redundant. New 4.B. better explains the SE intention

³ Redundant

- (C) identify and analyze information contained in informational texts, internet sites, or technical materials in the agricultural workplace;
 - (D) evaluate verbal and nonverbal cues and behaviors to enhance communication in the agricultural workplace;
 - (E) apply active listening skills to receive and clarify information in the agricultural workplace; and
 - (F) produce effective written and oral communication in the agricultural workplace.
- (6) The student practices financial literacy as it relates to agriculture. The student is expected to:
- (A) develop a budget based on personal financial goals;
 - (B) interpret the different components of a pay stub;
 - (C) read and reconcile bank statements;
 - (D) maintain financial records, including pay stubs, bank statements, and tax records;
 - (E) define credit and identify factors that impact a credit score;
 - (F) identify methods to prevent identity theft; and
 - (G) prepare or model how to complete a personal income tax form.
- (7) The student demonstrates technical knowledge and skills required to pursue a career in the Agriculture, Food, and Natural Resources Career Cluster. The student is expected to:
- (A) develop advanced technical knowledge and skills related to the individual occupational objective;
 - (B) develop an individualized training plan;
 - (C) evaluate personal strengths and weaknesses in technical skill proficiency;
 - (D) explain safe operation of tools and equipment related to the [work experience practicum](#);
 - Comment⁴(E) identify the cost of supplies, tools, equipment, or structures related to the [work experience practicum](#);
 - (F) identify the importance of maintaining supplies, tools, equipment, or structures related to the [work experience practicum](#); and
 - (G) identify opportunities for licensure or certification related to the chosen career path.
- (8) The student documents technical knowledge and skills. The student is expected to:
- (A) create a professional portfolio that includes:
 - (i) attainment of technical skill competencies;
 - (ii) licensures or certifications;
 - (iii) recognitions, awards, scholarships, or letters of recommendation;
 - (iv) extended learning experiences such as community service and active participation in career and technical student organizations and professional organizations;
 - (v) a summary of individual practicum experience;
 - (vi) a resume;
 - (vii) samples of work; and
 - (viii) an evaluation from the practicum supervisor; and

⁴ Clarify SE

- (B) present the portfolio to interested stakeholders.

DRAFT

§127.87. Extended Practicum in Agriculture, Food, and Natural Resources (One Credit), Adopted 2024.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2025-2026 school year.

Comment¹(b) General requirements. This course is recommended for students in Grades 11 and 12. The practicum course is a paid or an unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster. Prerequisite: a minimum of two credits with at least one course in a Level 2 or higher course from the Agriculture, Food, and Natural Resources Career Cluster ~~Prerequisite: a minimum of two credits with at least one course in a Level 2 or higher course from the Agriculture, Food, and Natural Resources Career Cluster. Recommended prerequisite: Principles of Agriculture, Food, and Natural Resources.~~ Corequisite: Practicum in Agriculture, Food, and Natural Resources. This course must be taken concurrently with Practicum in Agriculture, Food, and Natural Resources and may not be taken as a stand-alone course. Students shall be awarded one credit for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

- (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) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
- (3) Extended Practicum in Agriculture, Food, and Natural Resources, a corequisite course, is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. To prepare for careers in agriculture, food, and natural resources, students must attain academic knowledge and skills ~~skills and knowledge~~, acquire technical knowledge and skills related to the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.
- (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 standards/employability skills as required by business and industry. The student is expected to:
 - (A) participate in a paid or an unpaid, laboratory or work-based application of previously studied knowledge and skills related to agriculture, food, and natural resources;
 - (B) participate in training, education, or preparation for licensure, certification, or other relevant credentials to prepare for employment;
 - (C) demonstrate professional standards needed to be employable such as punctuality, time management, initiative, and cooperation with increased fluency;

¹ Alignment of prerequisite

- (D) demonstrate teamwork and conflict-management skills with increased fluency to achieve collective goals; and
 - (E) demonstrate planning and time-management skills and tools with increased fluency to enhance results and complete work tasks.
- (2) The student develops a supervised agricultural experience program. The student is expected to:
- (A) plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity;
 - (B) use appropriate record-keeping skills in a supervised agricultural experience program;
 - (C) participate in youth agricultural leadership opportunities;
 - (D) review and participate in a local program of activities; and
 - (E) create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences.
- (3) The student implements advanced professional communications strategies. The student is expected to:
- (A) apply appropriate content knowledge, technical concepts, and vocabulary with increased fluency to analyze information and follow directions;
 - (B) demonstrate verbal communication consistently in a clear, concise, and effective manner;
 - (C) demonstrate non-verbal communication consistently and effectively; and
 - (D) analyze, interpret, and effectively communicate information, data, and observations.
- (4) The student applies concepts of critical thinking and problem solving. The student is expected to:
- (A) apply critical-thinking skills with increased fluency both independently and collaboratively to solve problems and make decisions; and
 - (B) demonstrate the use of content, technical concepts, and vocabulary when analyzing information and following directions.
- (5) The student understands and applies proper safety techniques in the workplace. The student is expected to:
- (A) demonstrate and consistently follow workplace safety rules and regulations;
 - (B) demonstrate safe operation of tools and equipment;
 - (C) troubleshoot equipment when operation fails;
 - (D) demonstrate safe handling and proper disposal of supplies;
 - (E) identify unsafe conditions or practices; and
 - (F) describe procedures for reporting and handling accidents and safety incidents.
- (6) The student documents growth in advanced technical knowledge and skills. The student is expected to:
- (A) develop advanced technical knowledge and skills related to the student's occupational objective;
 - (B) demonstrate growth of technical skill competencies;
 - (C) evaluate personal strengths and weaknesses in technical skill proficiency; and
 - (D) update a professional portfolio.