# Scope & Sequence

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| Course Name: Food Processing **TSDS PEIMS Code:** 13001400 | **Course Credit:** 1.0**Course Requirements:** grades 10-12. **Prerequisites:** None.**Recommended Prerequisites:** Food Technology and Safety. |
| **Course Description:** Food Processing focuses on the food processing industry with special emphasis on the handling, processing, and marketing of food products. To prepare for careers in food products and processing systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to natural resources and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. |
| **NOTE:** This is a suggested scope and sequence for the course content. This content will work with any textbook or instructional materials. If locally adapted, make sure all TEKS are covered. |
| **Total Number of Periods****Total Number of Minutes****Total Number of Hours** | 175 periods7,875 minutes131.25 hours\* | \*Schedule calculations based on 175/180 calendar days. Scope and sequence allows additional time for guest speakers, student presentations, field trips, remediation, extended learning activities, etc.  |
| **Unit Number, Title, and Brief Description** | **# of Class Periods\***(assumes 45-minute periods)Total minutes per unite | **TEKS Covered****130.16 (c) Knowledge and skills** |
| **Unit 1: Career Exploration in the Agricultural/Food Processing Industry**Students will learn about careers in various areas in the food processing industry, the personal skills needed to obtain one of these jobs and how skills needed for success have changed over time. Students will understand the importance of time management, the importance of effective communication and appropriate interaction in the workplace as well as understand the importance of a first impression. This unit will culminate in an experiential activity designed to allow the students to create a resume and cover letter with a job description and to participate in a mock job interview with a panel of possible employees. | 5 periods225 minutes | (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:(A) identify career development and entrepreneurship opportunities in the food processing industry, including the value-added products industry;(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in the food processing industry, including the value-added products industry;(C) demonstrate knowledge of personal and occupational safety practices in the workplace;(D) identify employers' expectations, including appropriate work habits, ethical conduct, and legal responsibilities;(E) demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership; and(F) research career topics using technology such as the Internet. |
| **Unit 2: Supervised Agricultural Experience (SAE)** This unit, students will be able to define and describe Supervised Agricultural Experience (SAE) programs. Students will be able to explain how SAE’s are a vital part of the Agriculture Education Program by participating in local CTSO activities such as FFA as well as engage in a required SAE project. Students will be able to identify key partners in developing a successful SAE. Through involvement in an SAE, students will learn expected workplace behavior, develop specific skills within the industry, and will be given the opportunity to apply academic and occupational skills in the workplace.  | 10 periods450 minutes | (2) The student develops a supervised agriculture experience program. The student is expected to:(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity;(B) apply proper record-keeping skills as they relate to the supervised agriculture experience;(C) participate in youth leadership opportunities to create a well-rounded experience program; and (D) produce and participate in a local program of activities using a strategic planning process. |
| **Unit 3: Food Processing and the Free Enterprise Industry** Students will learn components of the free enterprise system as it relates to the food processing industry. They will be able to explain the characteristics of capitalism as it relates to an agribusiness. The students will understand how the government is involved in order to protect the environment and workers. Additionally, the students will learn about the global market and demands as it relates to the industry as well as trends in the consumption of food products. As a culminating activity, students will research a topic on governmental involvement in the agribusiness industry and report their findings to the class. |  20 periods900 minutes | (3) The student knows the relationship of the food processing industry to the free enterprise system. The student is expected to:(A) explain the importance of the food processing industry in the free enterprise system; and(B) explain trends in the consumption of food products. |
| **Unit 4: Consumer Satisfaction/Work Ethics**This unit, students will explore and explain the factors which affect food palatability such as: taste, smell, texture, appearance, species, diet and packaging to name a few as well as understanding the importance of performing quality-assurance tests. Students will also have the opportunity to learn and practice fabricating various meat products and demonstrate equipment maintenance and sanitation procedures.  | 30 periods1,350 minutes | (4) The student understands consumer satisfaction issues. The student is expected to:(A) practice equipment maintenance and sanitation procedures;(B) explain the factors that affect food palatability;(C) fabricate red meat, poultry, game, and fish into wholesale and retail cuts; and(D) demonstrate work ethics, customer relations skills, and management competencies consistent with industry standards. |
| **Unit 5: Meat Identification and Grading**This unit focuses on understanding the marketing considerations for food processing of meat. Students will learn about quality and beef quality and yield grading as well as carcass judging. The students will be able to identify wholesale and retail cuts of meat as well as determine the primal cuts. Students will also learn about further processing of poultry products and practice methods of merchandising red meat, poultry, game fish and other by-products. Students will gain hands on experience by fabricating red meat, poultry, game and fish into wholesale and retail cuts. As a culminating activity, the students will participate in mock meat identification evaluation similar to the one used in the meats evaluation FFA Career Development Event.  | 35 periods1,575 minutes | 4) The student understands consumer satisfaction issues. The student is expected to:(A) practice equipment maintenance and sanitation procedures; (C) fabricate red meat, poultry, game, and fish into wholesale and retail cuts; and(6) The student identifies marketing considerations for food processing. The student is expected to:(A) practice methods of merchandising red meat, poultry, game, fish, and their by-products;(B) identify, select, and grade meat; |
| **Unit 6: Quality Control in Food Processing**Ensuring food safety is critical in food processing systems. This unit introduces the seven principles of HACCP and the role a HACCP plan plays in food safety. As a culminating activity, students will choose a food product and develop a HACCP plan students will develop a flow diagram for the food production process they chose. The diagram should be a clear, simple description of the steps of the production process. The students will share their diagram with the class. | 30 periods1,350 minutes | (5) The student understands quality control issues in food processing. The student is expected to:(A) practice procedures relating to the safe manufacture of foods through hygienic food handling and processing;(B) develop and maintain sanitation schedules;(C) describe hazard analysis and critical control point implementation issues;(D) research food safety laws; and(E) describe solutions for different environmental issues. |
| **Unit 7: Marketing Considerations**This unit, students will recognize the importance of marketing of food products. Some of the topics in this unit discussed will be promoting the product, pricing, transporting and understanding the customer’s needs and desires. Students will also explore the criteria related to organic food processing and marketing. As a culminating activity for the unit, students will work in small groups to create a brochure, advertisement or a media piece to promote a specific food service operation. The students will share their project with the class.  | 20 periods900 minutes | (6) The student identifies marketing considerations for food processing. The student is expected to:(F) describe harvest and inspection techniques to process food products and analyze food product options; and(G) identify specific criteria for organic food processing and marketing. |
| **Unit 8: Food Preservation** Students will learn that preservation of food plays a similar role in importance as food production. Proper food preservation is vital to the shelf life of food and for the prevention of illness. This unit teaches students about the various preservation processes that are commonly used in the industry such as: irradiation, dehydration, blanching, hot-pack canning, cold-pack canning and commercial canning. It also provides details on the application and benefits of each. As a culminating activity, students in small groups will research a recipe for creating beef jerky. Upon agreeing on a recipe, the students will use the recipe to create the jerky. The students will share their experience with the class. | 25 periods1,125 minutes | (6) The student identifies marketing considerations for food processing. The student is expected to:(C) develop food preservation programs using appropriate food preservation methods;(D) explain the impact of temperature in food preservation;(E) compare and contrast preservation packaging such as film, plastic, and cans |