AFNR Processing

Career Cluster	Agriculture, Food and Natural Resources
Course Code	18302
Prerequisite(s)	Recommended: Introduction to AFNR
Credit	0.5 or 1.0 credit
Program of Study and Sequence	Food Science – AFNR Processing– Ag Biotechnology and/or capstone experience – Capstone Course
Student Organization	National FFA Organization
Coordinating Work-Based Learning	Job shadowing, mentoring, internships, entrepreneurships, service learning, workplace tours, apprenticeship, school-based enterprises, Supervised Agricultural Experience (SAE)
Industry Certifications	OSHA 10 Hour Safety Certification (General Industry), National Career Readiness Certificate (NCRC)
Dual Credit or Dual Enrollment	https://sdmylife.com/images/Approved-CTE-Dual-Credit.pdf
Teacher Certification	Agriculture Food and Natural Resources Cluster Endorsement; Food Products and Processing Pathway Endorsement; *Agriculture Education
Resources	

Course Description

AFNR Processing highlights the raw commodity and its journey to consumer-ready, value-added products. Utilizing appropriate equipment, technology, mathematics, science, and English, may enhance classroom and laboratory content and human relations skills will be reinforced in the course. Example potential topics include, but are not limited to, food processing, non-food processing including value added and byproducts of wood, fiber, and fuel. Work-based learning strategies appropriate for this course are school-based enterprises, field trips and internships. Opportunities for application of clinical and leadership skills are provided by participation in FFA through activities, conferences, and skills competitions such as Career Development Event (CDE), Leadership Development Events and Agriscience Fair Research Projects. Each student will be expected to maintain a Supervised Agricultural Experience (SAE).

Program of Study Application

Ag Processing Technology (Food and Fiber) is a second pathway course in the Agriculture, Food and Natural Resources cluster, Food Product and Processing Systems pathway. Ag Processing Technology (Food and Fiber) would follow Food Science and would prepare a student to participate in Ag Biotechnology or a capstone experience.

Course Standards

AgP 1: Understand and use safe practices

Webb Level	Sub-indicator
Two Skill/Concept	ADPS 1.1 Demonstrate safe use and knowledge of tools and equipment used in this area.
Two Skill/Concept	ADPS 1.2 Demonstrate workplace/worksite safety procedures and protocols.

AgP 2: Examine the makeup of the AFNR processing industries.

Webb Level	Sub-indicator
Three Strategic Thinking	AgP 2.1 Investigate the evolution of the food and/or non-food processing industry.
Two Skill/Concept	AgP 2.2 Discuss how safety is addressed in the AFNR processing industry.
One Recall	AgP 2.3 Explain how regulatory agencies in AFNR Processing industries work to protect consumers.

AgP 3: Demonstrate operational procedures used in AFNR Processing industries.

Webb Level	Sub-indicator
Two Skill/Concept	AgP 3.1 Explain regulatory procedures as they apply to AFNR processing.
Two Skill/Concept	AgP 3.2 Demonstrate worker safety procedures for AFNR processing equipment.
Two Skill/Concept	AgP 3.3 Explore advances in technology associated with AFNR processing

AgP 4: Processes for AFNR product storage, distribution, and consumption/use.

Webb Level	Sub-indicator
One Recall	AgP 4.1 Classify processed AFNR products.
Two Skill/Concept	AgP 4.2 Characterize industry harvesting, selection and inspection techniques.
Two Skill/Concept	AgP 4.3 Explain the steps involved with producing various AFNR products.
Four Extended Thinking	AgP 4.4 Process AFNR product safely.

AgP 5: Develop employability skills related to the Food Product and Processing Systems.

Webb Level	Sub-indicator
Two Skill/Concept	AgP 5.1 Develop soft skills to enhance employability.

AgP 6: Implement an individual project for career development through a Supervised Agriculture Experience/Work based Experience.

Webb Level	Sub-indicator
Two Skill/Concept	AgP 6.1 Develop an individual project plan with goals and timeline.
Two Skill/Concept	AgP 6.2 Explore opportunities within AFNR industries.
Three Strategic Thinking	AgP 6.3 Apply concepts of financial management appropriate to agricultural projects and personal finances.
Three Strategic Thinking	AgP 6.4 Develop and document knowledge and skills to ensure workplace safety regarding personal health and environmental management.
Four Extended Thinking	AgP 6.5 Research and analyze how public policy, laws, and advocacy impact agricultural systems and agricultural literacy.