



Horticulture Operations

Career Cluster	Agriculture, Food and Natural Resources
Course Code	18053
Prerequisite(s)	Recommended Intro to AFNR, Fundamental Plant Science AND/OR Fundamental Horticulture
Credit	0.5 or 1.0 credit
Program of Study and Sequence	Fundamental Horticulture – Horticulture Operations – Ag Biotechnology - Capstone
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), Private Pesticide Applicator Certification, Commercial Pesticide Applicator Certification
Dual Credit or Dual Enrollment	https://sdmylife.com/images/Approved-CTE-Dual-Credit.pdf
Teacher Certification	Agriculture, Food and Natural Resources Cluster Endorsement; Plant Systems Pathway Endorsement; *Agriculture Education
Resources	

Course Description

Horticulture Operations is designed for instructors to customize the curriculum to local industry needs. Standards can be met by utilizing one or more of the following horticulture sectors: Landscape Design, Floriculture and/or Greenhouse Management. Topics include identification, use and management of equipment and materials, as well as managing plant growth and maintaining plants and equipment. Employment skills are an additional emphasis. All three of these industry sectors require skilled, educated employees. Classroom and laboratory content will be enhanced by utilizing appropriate equipment and technology. Mathematics, (geometry), science (physical science, biology, Chemistry), English and human relations skills will be reinforced in the course. Opportunities for application of clinical and leadership skills are provided by participation in FFA through activities, conferences and skills competitions. Each student will be expected to maintain a Supervised Agricultural Experience (SAE) program.

Program of Study Application

Horticulture Operations is a second pathway course in the Agriculture, Food and Natural Resources Program of Study, Plant Systems pathway. Horticulture Operations is preceded by Fundamental Horticulture and would be followed by Ag Biotechnology.

Course Standards

ADVH 1: Understand and use safe practices.

<i>Webb Level</i>	<i>Sub-indicator</i>
Two Skill/Concept	ADVH 1.1 Demonstrate safe use and knowledge of tools and equipment used in horticulture operations.
Two Skill/Concept	ADVH 1.2 Demonstrate workplace/worksite safety procedures and protocols.

ADVH 2: Identify plants, equipment and materials utilized in the horticulture industry.

<i>Webb Level</i>	<i>Sub-indicator</i>
Two Skill/Concept	ADVH 2.1 Identify and categorize plants by their purpose.
Two Skill/Concept	ADVH 2.2 Identify and demonstrate proper use of tools and equipment used in horticultural industries.
One Recall	ADVH 2.3 Identify supplies and materials used in horticulture.
Four Extended Thinking	ADVH 2.4 Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.

ADVH 3: Develop and implement a horticulture management plan.

<i>Webb Level</i>	<i>Sub-indicator</i>
Three Strategic Thinking	ADVH 3.1 Determine the influence of environmental and nutritional factors on plants.
Four Extended Thinking	ADVH 3.2 Apply plant management and care practices.
Two Skill/Concept	ADVH 3.3 Demonstrate and communicate understanding of specialized growing techniques.

ADVH 4: Apply principles of design in plant systems to enhance an environment.

<i>Webb Level</i>	<i>Sub-indicator</i>
Three Strategic Thinking	ADVH 4.1 Compare plants based on quality and function.
Four Extended Thinking	ADVH 4.2 Create designs using plants.
Four Extended Thinking	ADVH 4.3 Apply concepts of proper use of plants in their environment.
Two Skill/Concept	ADVH 4.4 Evaluate a design and provide feedback and suggestions for improvement.

ADVH 5: Develop a business plan for owning and/or operating a horticulture business.

<i>Webb Level</i>	<i>Sub-indicator</i>
Four Extended Thinking	ADVH 5.1 Apply concepts of business management to a horticulture business

ADVH 6: Develop employability skills related to the Plant Systems Pathway.

<i>Webb Level</i>	<i>Sub-indicator</i>
Two Develop	ADVH 6.1 Develop soft skills to enhance employability.

ADVH 7 Implement an individual project for career development through a Supervised Agriculture Experience/Work based Experience.

<i>Webb Level</i>	<i>Sub-indicator</i>
Two Skill/Concept	ADVH 7.1 Develop an individual project plan with goals and timeline.
Two Skill/Concept	ADVH 7.2 Explore opportunities within AFNR industries.
Three Strategic Thinking	ADVH 7.3 Apply concepts of financial management appropriate to agricultural projects and personal finances.
Three Strategic Thinking	ADVH 7.4 Develop and document knowledge and skills to ensure workplace safety regarding personal health and environmental management.
Four Extended Thinking	ADVH 7.5 Research and analyze how public policy, laws, and advocacy impact agricultural systems and agricultural literacy.