

Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster includes all essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from border, tractor, and waterman to geologist, land conservationist, and florist.

The Plant Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of plants and other living organisms. This program of study includes the application of biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.

Secondary Courses for High School Credit

Level 1 • Principles of Agriculture, Food, and Natural Resources

Level 2 • Landscape Design and Management
 • Turf Grass Management
 • Greenhouse Operation and Production
 • Greenhouse Operation and Production + Agricultural Laboratory and Field Experience
 • Entrepreneurship I

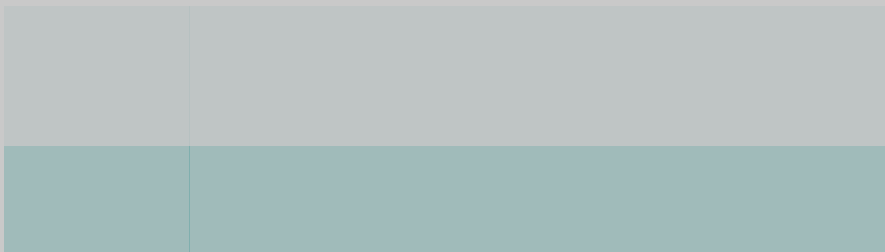
Level 3 • Viticulture
 • Horticultural Science
 • Horticultural Science + Agricultural Laboratory and Field Experience
 • Floral Design
 • Floral Design + Agricultural Laboratory and Field Experience

Level 4 • Advanced Plant and Soil Science
 • Advanced Floral Design
 • Career and Technical Education Project-Based Capstone
 • Practicum I/MCID 38 05 ID 358-4PT5595 (Ca)-2.005 (pst)-3.997 (D5.99 (an), i)-on Aligned Advanced Academic Courses

AP or IB
 AP Biology
 AP Environmental Science
 IB Biology SL
 IB Biology HL
 AP Chemistry
 IB Chemistry SL
 IB Chemistry HL

Dual Credit Dual credit offerings will vary by local education agency.





Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.








Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Horticultural Science 13002000 (1 credit)	Prerequisites: At least one credit in a course from the AFNR career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Horticultural Science + Agricultural Laboratory and Field Experience 13002010 (2 credits)	Prerequisites: At least one credit in a course from the AFNR career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Floral Design 13001800 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Floral Design + Agricultural Laboratory and Field Experience 13001810 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	1. Agriculture, Food & Natural Resources 

Level 4







Course	Prerequisites Corequisites	Career Clusters
Advanced Plant and Soil Science 13002100 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology, Integrated Physics and Chemistry, Chemistry, or Physics and a minimum of one credit in a course from the AFNR career cluster Recommended Corequisites: None	
Advanced Floral Design N1300270 (1 credit)	Prerequisites: Floral Design Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	1. Agriculture, Food & Natural Resources 
Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study

For additional information on the Agriculture, Food, and Natural Resources career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
<p>Practicum in Agriculture, Food, and Natural Resources*</p> <p>First Time Taken: 13002500 (2 credits)</p> <p>Second Time Taken: 13002510 (2 credits)</p>	<p>Prerequisites: A minimum of two credits with at least one course in a Level 2 or higher course from the AFNR career cluster</p> <p>Corequisites: None</p> <p>Recommended Prerequisites: None</p> <p>Recommended Corequisites: None</p>	
<p>Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources*</p> <p>First Time Taken: 13002505 (3 credits)</p> <p>Second Time Taken: 13002515 (3 credits)</p>	<p>Prerequisites: A minimum of two credits with at least one course in a Level 2 or higher course from the AFNR career cluster</p> <p>Corequisites: None</p> <p>Recommended Prerequisites: None</p> <p>Recommended Corequisites: None</p>	
<p>Practicum in Entrepreneurship*</p> <p>First Time Taken: 13011111 (2 credits)</p>	<p>Prerequisites: None</p> <p>Corequisites: None</p> <p>Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study</p> <p>Recommended Corequisites: None</p>	
<p>Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship*</p> <p>First Time Taken: 13011121 (3 credits)</p>	<p>Prerequisites: None</p> <p>Corequisites: None</p> <p>Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study</p> <p>Recommended Corequisites: None</p>	
<p>Career Preparation for Programs of Study*</p> <p>First Time Taken: 12701121 (2 credits)</p>	<p>Prerequisites: At least one Level 2 or higher CTE course</p> <p>Corequisites: None</p> <p>Recommended Prerequisites: None</p> <p>Recommended Corequisites: None</p>	
<p>Career Preparation for Programs of Study + Extended Career Preparation*</p> <p>First Time Taken: 12701141 (3 credits)</p>	<p>Prerequisites: At least one Level 2 or higher CTE course</p> <p>Corequisites: None</p> <p>Recommended Prerequisites: None</p> <p>Recommended Corequisites: None</p>	

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