



Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Agriculture Business, Leadership, and Communications

The Agriculture Business, Leadership, and Communications program of study focuses on occupational and educational opportunities associated with farming and agriculturally related businesses that supply farm inputs, such as machinery and seeds. This program of study includes exploration of farm product marketing, the purchase of farm products either for processing or resale, and the process of grading or classifying unprocessed food or other agricultural products.

Secondary Courses for High School Credit

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|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Agriculture, Food, and Natural Resources Professional Communications |
| Level 2 | <ul style="list-style-type: none"> Professional Standards and Communication in Agribusiness Mathematical Applications in Agriculture, Food, and Natural Resources Entrepreneurship I |
| Level 3 | <ul style="list-style-type: none"> Agribusiness Management and Marketing Agribusiness Management and Marketing + Agricultural Laboratory and Field Experience |
| Level 4 | <ul style="list-style-type: none"> Agricultural Leadership, Research, and Communications Career and Technical Education Project-Based Capstone Practicum in Agriculture, Food, and Natural Resources Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation |



Example Postsecondary Opportunities

Associate Degrees

- Accounting
- Agribusiness

Bachelor's Degrees

- Agriculture Economics
- Agribusiness

Master's, Doctoral, and Professional Degrees

- Accounting
- Applied Economics

Additional Stackable IBCs/License

- Accredited Farm Manager



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow at a farm or ranch that manages livestock and crops to learn about processing and sales
- Intern at an agrochemical manufacturer to learn about new technologies in agribusiness

Expanded Learning Opportunities

- Participate in an FFA career, leadership, and speaking contest like an agriscience fair
- Attend an agricultural industry seminar

Aligned Industry-Based Certifications

- | | |
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| <ul style="list-style-type: none"> Content Creation & Marketing Using Adobe Express Entrepreneurship and Small Business Meta Certified Digital Marketing Associate Microsoft Office Specialist: Microsoft Excel Expert (2019+ or 365 Apps) | <ul style="list-style-type: none"> Online Marketing Certified Associate (OMCA) Production Agriculture - Job Ready Tosa Microsoft Excel (Advanced or Expert) |
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Example Aligned Occupations

Loan Interviewers and Clerks

Median Wage: \$47,102
Annual Openings: 2,468
10-Year Growth: 10%

Loan Officers

Median Wage: \$65,851
Annual Openings: 2,508
10-Year Growth: 14%

Farmers, Ranchers, and Other Agricultural Managers

Median Wage: \$79,064
Annual Openings: 30,363
10-Year Growth: 4%





Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: *Agriculture Business, Leadership, and Communications*

Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Agriculture, Food, and Natural Resources* 13000200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Professional Communications 13009900 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	   

Level 2

Course	Prerequisites Corequisites	Career Clusters
Professional Standards and Communication in Agribusiness 13000800 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Agriculture, Food, and Natural Resources Recommended Corequisites: None	
Mathematical Applications in Agriculture, Food, and Natural Resources 13001000 (1 credit)	Prerequisites: Algebra I Corequisites: None Recommended Prerequisites: One credit from the courses in the Agriculture, Food, and Natural Resources career cluster Recommended Corequisites: None	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing and Finance Recommended Corequisites: None	       

Level 3

Course	Prerequisites Corequisites	Career Clusters
Agribusiness Management and Marketing 13000900 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Agriculture, Food, and Natural Resources Recommended Corequisites: None	
Agribusiness Management and Marketing + Agricultural Laboratory and Field Experience 13000910 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Agriculture, Food, and Natural Resources Recommended Corequisites: None	

* Indicates course is included in more than one program of study in this career cluster.

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



Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: Agriculture Business, Leadership, and Communications

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Agricultural Leadership, Research, and Communications 13000950 (1 credit)	Prerequisites: One credit from courses in the Agriculture, Food, and Natural Resources career cluster Corequisites: None Recommended Prerequisites: Principles of Agriculture, Food, and Natural Resources Recommended Corequisites: None	
Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Agriculture, Food, and Natural Resources* First Time Taken: 13002500 (2 credits) Second Time Taken: 13002510 (2 credits)	Prerequisites: 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 Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources* First Time Taken: 13002505 (3 credits) Second Time Taken: 13002515 (3 credits)	Prerequisites: 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 Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and II, or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship* First Time Taken: 13011121 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and II, or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	

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Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: Agriculture Business, Leadership, and Communications

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	           
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	           

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