

# 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

- Level 1**
  - Principles of Agriculture, Food, and Natural Resources
  - Professional Communications

---

- Level 2**
  - Professional Standards in Agribusiness
  - Mathematical Applications in Agriculture, Food, and Natural Resources
  - Entrepreneurship I

---

- Level 3**
  - Agribusiness Management and Marketing
  - Agribusiness Management and Marketing + Agricultural Laboratory and Field Experience

---

- Level 4**
  - 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

### Aligned Advanced Academic Courses

<b>AP or IB</b>	AP Microeconomics AP Statistics IB Economics SL IB Economics HL IB Mathematics Analysis and Approaches SL IB Mathematics Analysis and Approaches HL
<b>Dual Credit</b>	Dual credit offerings will vary by local educational 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.

### Work-Based Learning and Expanded Learning Opportunities

<b>Work-Based Learning Activities</b>	<ul style="list-style-type: none"> <li>• Shadow at a farm or ranch that manages livestock and crops to learn about processing and sales</li> <li>• Intern at an agrochemical manufacturer to learn about new technologies in agribusiness</li> </ul>
<b>Expanded Learning Opportunities</b>	<ul style="list-style-type: none"> <li>• Participate in an FFA career, leadership, and speaking contest like an agriscience fair</li> <li>• Attend an agricultural industry seminar</li> </ul>

### Aligned Industry-Based Certifications

- Entrepreneurship and Small Business
- Production Agriculture - Job Ready
- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)

Successful completion of the Agriculture Business, Leadership, and Communications program of study will fulfill requirements of the Business and Industry endorsement.



### 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



### Example Aligned Occupations

#### Loan Interviewers and Clerks

Median Wage: \$46,572  
 Annual Openings: 2,307  
 10-Year Growth: 10%

#### Loan Officers

Median Wage: \$66,285  
 Annual Openings: 2,261  
 10-Year Growth: 14%

#### Farmers, Ranchers, and Other Agricultural Managers

Median Wage: \$65,490  
 Annual Openings: 28,020  
 10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024






















For more information visit:  
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



# Agriculture, Food, and Natural Resources Career Cluster

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

### Course Information

	Course	Prerequisites   Corequisites	Career Clusters
Level 1	<b>Principles of Agriculture, Food, and Natural Resources*</b> 13000200 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
	<b>Professional Communications</b> 13009900 (0.5 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	   
Level 2	<b>Professional Standards in Agribusiness</b> 13000800 (0.5 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
	<b>Mathematical Applications in Agriculture, Food, and Natural Resources</b> 13001000 (1 credit)	<b>Prerequisites:</b> Algebra I <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> One credit from the courses in the AFNR career cluster <b>Recommended Corequisites:</b> None	
	<b>Entrepreneurship I*</b> 13011101 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Principles of Business, Marketing and Finance <b>Recommended Corequisites:</b> None	         
Level 3	<b>Agribusiness Management and Marketing</b> 13000900 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
	<b>Agribusiness Management and Marketing + Agricultural Laboratory and Field Experience</b> 13000910 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> 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](mailto: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
<b>Agricultural Leadership, Research, and Communications</b> N1300266 (1 credit)	<b>Prerequisites:</b> One credit from courses in the AFNR career cluster <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Career and Technical Education Project-Based Capstone*</b> First Time Taken: 12701101 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Practicum in Agriculture, Food, and Natural Resources*</b> First Time Taken: 13002500 (2 credits) Second Time Taken: 13002510 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> A minimum of one credit from the courses in the AFNR career cluster <b>Recommended Corequisites:</b> None	
<b>Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources*</b> First Time Taken: 13002505 (3 credits) Second Time Taken: 13002515 (3 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> A minimum of one credit from the courses in the AFNR career cluster <b>Recommended Corequisites:</b> None	
<b>Practicum in Entrepreneurship*</b> First Time Taken: 13011111 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study <b>Recommended Corequisites:</b> None	
<b>Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship*</b> First Time Taken: 13011121 (3 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study <b>Recommended Corequisites:</b> None	

*Continued on next page*

\* 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](mailto:cte@tea.texas.gov) or visit <https://tea.texas.gov/cte>



[LEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).

Agriculture Business, Leadership, and Communications



# 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
<b>Career Preparation for Programs of Study*</b> First Time Taken: 12701121 (2 credits)	<b>Prerequisites:</b> At least one Level 2 or higher CTE course <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Career Preparation for Programs of Study + Extended Career Preparation*</b> First Time Taken: 12701141 (3 credits)	<b>Prerequisites:</b> At least one Level 2 or higher CTE course <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> 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](mailto:cte@tea.texas.gov) or visit <https://tea.texas.gov/cte>



[LEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).