



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**
- Entrepreneurship I

Level 3

- Level 4**
- 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

AP or IB

AP Microeconomics
AP Statistics
IB Economics SL
IB Economics HL
IB Mathematics Analysis and Approaches SL
IB Mathematics Analysis and Approaches HL

Dual Credit

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

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

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

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



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 in Agribusiness 13000800 (0.5 credit) | Prerequisites: None Corequisites: None Recommended Prerequisites: None 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 AFNR 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: None Recommended Corequisites: None |  |
| Agribusiness Management and Marketing + Agricultural Laboratory and Field Experience 13000910 (2 credits) | 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>



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 N1300266 (1 credit) | Prerequisites: One credit from courses in the AFNR career cluster Corequisites: None Recommended Prerequisites: None 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: None Corequisites: None Recommended Prerequisites: A minimum of one credit from the courses in the AFNR career cluster 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: None Corequisites: None Recommended Prerequisites: A minimum of one credit from the courses in the AFNR career cluster 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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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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