

AGRICULTURE

- Agriculture AA Degree, Liberal Arts Major (coursecatalog.tvcc.edu/pathways/business-technology/agriculture/agriculture-aa/)
- Beef Cattle Manager Certificate (coursecatalog.tvcc.edu/pathways/business-technology/agriculture/beef-cattle-manager-certificate/)
- Ranch and Feedyard Operations Certificate (coursecatalog.tvcc.edu/pathways/business-technology/agriculture/ranch-feedyard-certificate/)
- Ranch Management AAS Degree (coursecatalog.tvcc.edu/pathways/business-technology/agriculture/ranch-management-aas/)
- Ranch Management Certificate (coursecatalog.tvcc.edu/pathways/business-technology/agriculture/ranch-management-certificate/)

AGAH-1447. Animal Reproduction. (4 Credits)

(4-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Study of organs, functions, endocrinology, and common management practices related to reproduction.. Lab fee.

AGAH-2313. Principles of Feeds and Feeding. (3 Credits)

(3-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Study of the role and application of feed nutrients and additives. Topics include comparative aspects of digestion, absorption, and metabolism of nutrients. Emphasis on identification of nutrient requirements and formulation of dietary feeding regimens. Lab fee.

AGCR-1341. Forage and Pasture Management and Utilization. (3 Credits)

(3-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Study of the production and management of forage crops and pastures including establishment, fertilization, weed control, grazing systems, hay, seed production, and harvesting. Lab fee.

AGEQ-1350. Equine Reproduction. (3 Credits)

(3-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Reproductive anatomy, physiological functions, and common management practices related to equine reproduction and facilities.

AGEQ-1411. Equine Science I. (4 Credits)

(4-3-3) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. An introduction to the horse industry. Includes history, organization and operation of equine enterprises, selection, breeds, breeding, reproduction, health, nutrition, management, and marketing. Lab fee.

AGRI-1131. The Agricultural Industry. (1 Credit)

(1-1-0) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. This course provides an overview of world agriculture, nature of the industry and resource conservation, and the American agricultural system which is dependent on coordination of the production agriculture, processing, distribution, marketing, delivery systems and their sub-systems. Employment forecasts and basic information will be provided to assist the student in selecting a field of study.

AGRI-1325. Marketing of Agricultural Products. (3 Credits)

(3-3-0) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Essential marketing functions in the movement of agricultural commodities and products from producer to consumer.

AGRI-1407. Agronomy. (4 Credits)

(4-3-3) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Scientific approach to agronomic crops; their importance, value, use characteristics, classification, distribution, climatic and soil requirements, production, storage, improvement and seed technology. Lab fee.

AGRI-1419. Introductory Animal Science. (4 Credits)

(4-3-3) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock. Lab fee.

AGRI-2301. Agricultural Power Units. (3 Credits)

(3-3-1) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock. Lab fee.

AGRI-2303. Agricultural Construction. (3 Credits)

(3-3-1) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Safety procedures, selection, use, and maintenance of hand and power tools, metal cutting and welding; and construction materials and principles. Lab fee.

AGRI-2317. Introduction to Agricultural Economics. (3 Credits)

(3-3-0) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Fundamental economic principles and their application in the agricultural industry.

AGRI-2321. Livestock Evaluation. (3 Credits)

(3-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Evaluation and grading of market cattle, swine, sheep, and goats and their carcasses and wholesale cuts. Emphasis will be placed on value determination. Selection and evaluation of breeding cattle, sheep, swine, and goats with emphasis on economically important traits. Lab fee.

AGRI-2330. Wildlife Conservation and Management. (3 Credits)

(3-3-1) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Principles and practices used in the production and improvement of wildlife resources. Aesthetic, ecological, and recreational uses of public and private lands. Lab fee.

AGAH-1401. Animal Science. (4 Credits)

(4-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. An introductory survey of the scientific principles and applied practices related to livestock production. Topics include genetics, animal breeding and selection, anatomy and physiology, nutrition, reproduction, health, and marketing of livestock and livestock products. Lab fee.

AGAH-1353. Beef Cattle Production. (3 Credits)

(3-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. An overview of the beef cattle industry. Topics include the organization and operation of beef cattle enterprises, selection breeding, reproduction, health, nutrition, management and marketing. Lab fee.

AGMG-2280. Coop Education, Agriculture Business And Management. (2 Credits)

(2-0-11) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Career related activities encountered in the students area of specialization offered through a cooperative agreement between the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. A seminar class will help guide the student through the stated learning objectives. Lab fee.

AGCR-2305. Entomology. (3 Credits)

(3-3-0) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Study of the morphology, physiology, and classification of the common insect orders and related arthropods with emphasis on species of economic or biological importance. Emphasis on integrated pest management concepts and proper use of pesticides.

AGCR-1341. Forage and Pasture Management and Utilization. (3 Credits)

(3-2-4) This course is taken for academic credit. Students will earn an A, B, C, D, F, or W. Study of the production and management of forage crops and pastures including establishment, fertilization, weed control, grazing systems, hay, seed production, and harvesting. Lab fee.

What Agricultural Workers Do (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-2>)

Agricultural workers maintain crops and tend to livestock. They perform physical labor and operate machinery under the supervision of farmers, ranchers, and other agricultural managers (<https://www.bls.gov/ooh/management/farmers-ranchers-and-other-agricultural-managers.htm>).

Duties

Agricultural workers typically do the following:

- Harvest and inspect crops by hand
- Irrigate farm soil and maintain ditches or pipes and pumps
- Operate and service farm machinery and tools
- Spray fertilizer or pesticide solutions to control insects, fungi, and weeds
- Move shrubs, plants, and trees with wheelbarrows or tractors

- Feed livestock and clean and disinfect their pens, cages, yards, and hutches
- Examine animals to detect symptoms of illnesses or injuries and administer vaccines to protect animals from diseases
- Use brands, tags, or tattoos to mark livestock in order to identify ownership and grade
- Herd livestock to pastures for grazing or to scales, trucks, or other enclosures

The following are examples of types of agricultural workers:

Agricultural equipment operators use a variety of farm equipment to plow and sow seeds, as well as maintain and harvest crops. They may use tractors, fertilizer spreaders, balers, combines, threshers, and trucks. These workers also operate machines such as conveyor belts, loading machines, separators, cleaners, and dryers. Workers may make adjustments and minor repairs to equipment.

Animal breeders use their knowledge of genetics and animal science to select and breed animals that will produce offspring with desired traits and characteristics. For example, they breed chickens that lay more eggs, pigs that produce leaner meat, and sheep with more desirable wool. Others breed and raise cats, dogs, and other household pets.

To know which animals to breed and when to breed them, animal breeders keep detailed records. Breeders note animals' health, size, and weight, as well as the amount and quality of the product they produce. Animal breeders also track the traits of animals' offspring.

Some animal breeders may consult with farmers, ranchers, and other agricultural managers about their livestock.

Crop, nursery, and greenhouse farmworkers and laborers perform numerous tasks related to growing and harvesting grains, fruits, vegetables, nuts, and other crops. They plant, seed, prune, irrigate, and harvest crops, and pack and load them for shipment.

Farmworkers also apply pesticides, herbicides, and fertilizers to crops. They repair fences and some farm equipment.

Nursery and greenhouse workers prepare land or greenhouse beds for growing horticultural products such as trees, plants, flowers, and sod. They also plant, water, prune, weed, and spray the plants. They may cut, roll, and stack sod; stake trees; tie, wrap, and pack plants to fill orders; and dig up or move field-grown shrubs and trees.

Farm and ranch animal farmworkers care for live animals, including cattle, sheep, pigs, goats, horses, poultry, finfish, shellfish, and bees. These animals usually are raised to supply meat, fur, skins, feathers, eggs, milk, or honey.

These farmworkers may feed, herd, brand, weigh, and load animals. They also keep records on animals; examine animals to detect diseases and injuries; and administer medications, vaccinations, or insecticides.

Many workers clean and maintain animal housing areas every day. On dairy farms, animal farmworkers operate milking machines.

SUMMARY (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm>)

- Agricultural workers
- 2018 Median Pay: \$24,620 per year; \$11.84 per hour
- Typical Entry-Level Education: See How to Become One (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-4>)
- Work Experience in a Related Occupation: None
- On-the-job Training: See How to Become One (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-4>)
- Number of Jobs, 2018: 876,300
- Job Outlook, 2018-28: 1% (Little or no change)
- Employment Change, 2018-28: 10,900

Work Environment (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-3>)

Agricultural workers usually perform their duties outdoors in all kinds of weather.

How to Become an Agricultural Worker (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-4>)

Agricultural workers typically receive on-the-job training. A high school diploma is not needed for most jobs as an agricultural worker; however, a high school diploma typically is needed for animal breeders.

Pay (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-5>)

The median annual wage for agricultural workers was \$24,620 in May 2018.

Job Outlook (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-6>)

Overall employment of agricultural workers is projected to show little or no change from 2018 to 2028. Despite increased demand for crops and other agricultural products, employment growth is expected to be tempered as agricultural establishments continue to use technologies that increase output per farmworker.

State & Area Data (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-7>)

Explore resources for employment and wages by state and area for agricultural workers.

Similar Occupations (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-8>)

Compare the job duties, education, job growth, and pay of agricultural workers with similar occupations.

More Information, Including Links to O*NET (<https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm#tab-9>)

Learn more about agricultural workers by visiting additional resources, including O*NET, a source on key characteristics of workers and occupations.

SUGGESTED CITATION:

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Agricultural Workers, on the Internet at <https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm> (visited *March 04, 2020*).

TVCC has partnered with Career Coach (<https://tvcc.emsicc.com/?radius=®ion=10%20Mile%20Radius%20from%20Athens%2C%20TX>) for students to discover majors and in-demand careers and education based on your interests!

- Career Assessment Profiler
- Interactive Career Catalog
- Browse TVCC's Pathways

Some careers in this field will require a bachelor's degree.

- TVCC's AA degrees are fully transferable to public universities in Texas. See an academic advisor or TVCC's university transfer webpage (<https://www.tvcc.edu/Advisement/Category.aspx?z=72>) for more information on this transfer opportunity.
- Many of TVCC's AAS degrees lead to an online Bachelor of Applied Arts and Sciences (BAAS) degree with participating universities. See an academic advisor or the BAAS transfer website (<https://www.ntxccc.org/pathways/>) for more information on this transfer opportunity.