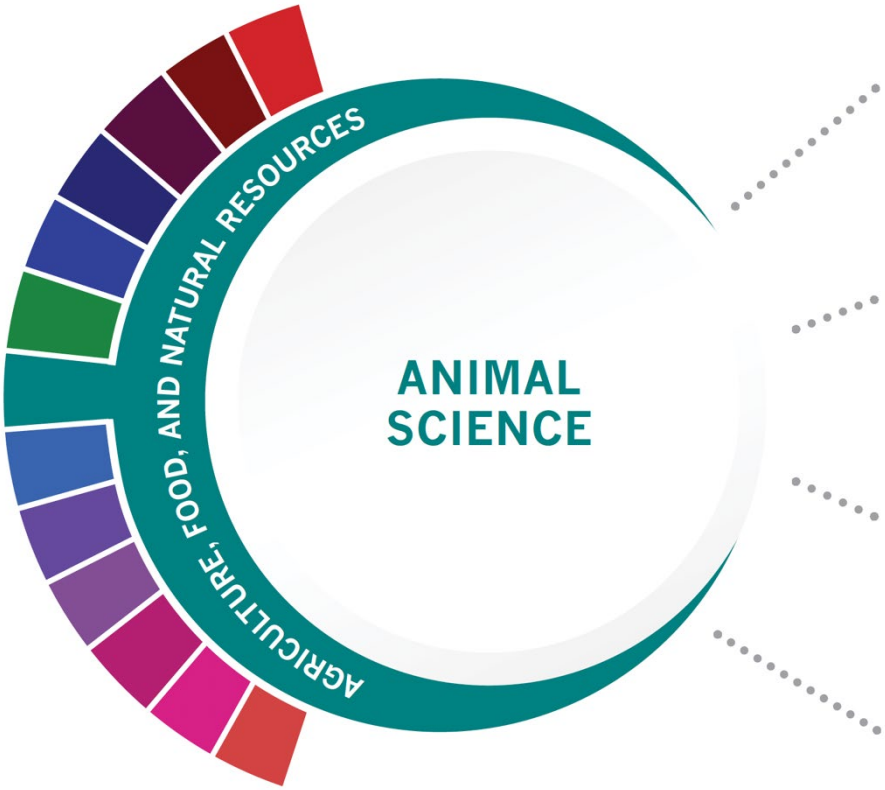


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|---|---|
| **Level 1** | Principles of Agriculture, Food, and Natural Resources |
| **Level 2** | Small Animal Management<br>Equine Science |
| **Level 3** | Livestock Production/Lab |
| **Level 4** | Advanced Animal Science<br>Veterinary Medical Applications/Lab<br>Practicum in Agriculture, Food, and Natural Resources<br>Project-Based Research<br>Scientific Research and Design |

| HIGH SCHOOL/ INDUSTRY CERTIFICATION | CERTIFICATE/ LICENSE* | ASSOCIATE'S DEGREE | BACHELOR'S DEGREE | MASTER'S/ DOCTORAL PROFESSIONAL DEGREE |
|---|---|---|---|---|
| Licensed Veterinary Technician | Pet Groomer | Food Science and Technology | Animal Sciences | Genetics |
| Feedyard Technician in Cattle Care and Handling | Veterinary Technician | Veterinary Studies | Agriculture | Veterinary Medicine |
| Certified Veterinary Assistant | Licensed Breeder | Biotechnology Laboratory Technician | Biology | Biological and Physical Sciences |
| | | Biology Technician | Zoology/ Animal Biology | Biological and Biomedical Sciences |

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

| Occupations | Median Wage | Annual Openings | % Growth |
|---|---|---|---|
| Animal Breeders | $39,135 | 28 | 9% |
| Animal Scientists | $57,533 | 22 | 12% |
| Medical Scientists | $63,898 | 435 | 27% |
| Veterinarians | $93,496 | 294 | 24% |
| Zoologists and Wildlife Biologists | $67,309 | 45 | 32% |

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

| Exploration Activities: | Work Based Learning Activities: |
|---|---|
| Texas FFA | Agri-Science Fair<br>4H<br>Volunteer at a local farm or veterinary office<br>FFA Supervised Agriculture Experience (SAE) |

**The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches CTE learners how to apply biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.**

**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 a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.**

Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised - July 2020

TEA® Texas Education Agency

# COURSE INFORMATION

| COURSE NAME | SERVICE ID | PREREQUISITES (PREQ) COREQUISITES (CREQ) | Grade |
|---|---|---|---|
| Principles of Agriculture, Food, and Natural Resources | 13000200 (1 credit) | None | 9-12 |
| Small Animal Management | 13000400 (0.5 credit) | None | 10-12 |
| Equine Science | 13000500 (0.5 credit) | None | 10-12 |
| Livestock Production/Lab | 13000300 (1 credit)<br>13000310 (2 credits) | None | 10-12 |
| Advanced Animal Science | 13000700 (1 credit) | PREQ: Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production; | 11-12 |
| Veterinary Medical Applications/Lab | 13000600 (1 credit)<br>13000610 (2 credits) | PREQ: Equine Science, Small Animal Management, or Livestock Production | 11-12 |
| Practicum in Agriculture, Food, and Natural Resources | 13002500 (2 credits)<br>13002505 (3 credits)<br>13002510 (2 credits)<br>13002515 (3 credits) | None | 11-12 |
| Project-Based Research | 12701500 (1 credit) | None | 11-12 |
| Scientific Research and Design | 13037200 (1 credit) | PREQ: Biology, Chemistry, Integrated Physics, and Chemistry (IPC), or Physics | 11-12 |
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FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER, PLEASE CONTACT:

Les Hudson | Les.Hudson@tea.texas.gov

https://tea.texas.gov/cte