

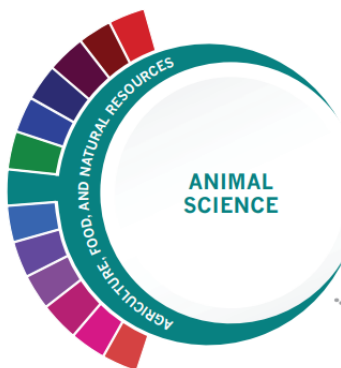
Career and Technical Education

Career and Technical Education provides the opportunities for students to take a sequence of courses in high school that prepare them for entry-level work in a career path. All CTE Programs of Study lead to either an industry certification in that area or college credit.



Animal Science Program of Study

Business and Industry Endorsement



The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches students 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 other 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

To complete the Program of Study, students must earn four credits in the Program of Study and one of the credits must be an Advanced Level course.

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Licensed Veterinary Technician	Pet Groomer	Food Science and Technology	Animal Sciences	Genetics	Animal Breeders	\$39,135	28	9%
Feedyard Technician in Cattle Care and Handling	Veterinary Technician	Veterinary Studies	Agriculture	Veterinary Medicine	Animal Scientists	\$57,533	22	12%
Certified Veterinary Assistant	Licensed Breeder	Biotechnology Laboratory Technician	Biology	Biological and Physical Sciences	Medical Scientists	\$63,898	435	27%
		Biology Technician	Zoology/ Animal Biology	Biological and Biomedical Sciences	Veterinarians	\$93,496	294	24%
					Zoologists and Wildlife Biologists	\$67,309	45	32%
Additional industry based certification information is available from the TEA CTE website.					WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES			
For more information on postsecondary options for this program of study, visit TXCTE.org .					Exploration Activities: Texas FFA	Work Based Learning Activities: Agri-Science Fair 4H Volunteer at a local farm or veterinary office		

Courses in this Program of Study

PRINCIPLES OF AGRICULTURE, FOOD & NATURAL RESOURCES

Course # 07081000

Recommended Grade Placement 9

1 CREDIT

This course helps students prepare for careers in agriculture, food and natural resources, students must develop academic skills and knowledge in agriculture. This course covers career opportunities, leadership, communications, and the FFA. Technical agricultural topics covered will include: soils, plants, animals, agricultural construction, food science, and welding.

SMALL ANIMAL MANAGEMENT

Course # 07221520

Recommended Grade Placement 9-11

1/2 CREDIT

In this course, students acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Suggested small animals which may be included in the course of study include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats.

EQUINE SCIENCE

Course # 07221500

Recommended Grade Placement 9-11

1/2 CREDIT

A course designed to develop knowledge and skills pertaining to the selection, nutrition, reproduction, health, and management of horses.

LIVESTOCK PRODUCTION

Course # 07221530

Recommended Grade Placement 10-11

1 CREDIT

In this course, students will examine animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

ADVANCED ANIMAL SCIENCE (approved by the State Board of Education for 4th Science credit)

Course # 07221225

Prerequisites: Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production. Recommended prerequisite: Veterinary Medical Applications.

Recommended Grade Placement 11-12

1 CREDIT

This course is designed to examine the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to expand one’s knowledge of the scientific and technological dimensions of resources necessary for animal production.

VETERINARY MEDICAL APPLICATIONS

Course # 07221540

Prerequisite: Small Animal Management and Equine Science or Livestock Production

Recommended Grade Placement 11-12

1 CREDIT

A course designed to review veterinary practices as they relate to both large and small animal species. Students will have the opportunity to take the Texas Veterinary Medical Association, Certified Veterinary Assistant Level I Exam

PRACTICUM IN AGRICULTURE, FOOD & NATURAL RESOURCES

Course # 07221950

Prerequisite: At least one prior Agriculture, Food, and Natural Resources credit

Recommended Grade Placement 12

2 CREDITS

The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources cluster. Students are required to serve in paid or unpaid internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Courses in Program of Study (Prerequisites noted in course descriptions)

To complete the Program of Study, students must earn four credits in the Program of Study and one of the credits must be an Advanced Level course.

Entry-Level Courses	Advanced Courses
Principles of Agriculture, Food, and Natural Resources	Livestock Production
Small Animal Management	Advanced Animal Science
Equine Science	Veterinary Medical Applications
	Practicum of Agriculture, Food and Natural Resources