



<b>Level 1</b>	Principles of Agriculture, Food, and Natural Resources
<b>Level 2</b>	Floral Design
<b>Level 3</b>	Landscape Design & Management Turf Grass Managements
<b>Level 4</b>	Horticulture Science Practicum in Horticulture Science

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Texas State Floral Association Level One Floral Certification	Pesticide Applicator	Applied Horticulture/ Horticulture Operations, General	Applied Horticulture/ Horticulture Operations, General	Applied Horticulture/ Horticulture Operations, General
	Certified Floral Designer	Ornamental Horticulture	Agronomy and Crop Science	Agronomy and Crop Science
	Accredited Member of AIFD	Agricultural Business and Management, General	Agricultural Business and Management, General	Agricultural Business and Management, General
	Landscape Industry Certified Technician	Turf and Turfgrass Management	Turf and Turfgrass Management	Farm/Farm and Ranch Management

Occupations	Median Wage	Annual Openings	% Growth
Soil and Plant Scientists	\$54,662	116	21%
Tree Trimmers and Pruners	\$32,240	589	14%
Pesticide Handlers, Sprayers, and Applicators	\$36,733	196	22%
Landscaping Supervisors	\$44,408	807	19%
Biological Technicians	\$42,931	452	17%

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.

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:	Work Based Learning Activities:
Texas FFA	Work part-time at a florist; start or work for a local landscaping business FFA Supervised Agriculture Experience (SAE)

The Plant Science program of study focuses on the science, research, and business of plants and other living organisms. It teaches students how to apply biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.



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 Plant 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

# Agriculture, Food, & Natural Resources

The Agriculture, Food & Natural Resources program of study is committed to preparing students for careers and life skills through education and training in agricultural commodities and natural resources. Horticulture, Veterinary Science and Animal Science are available programs on campus and can get students out of the classroom and enjoying the outdoors. Students can receive certifications in Floral Design, Veterinary Science, or Animal Science. The Benz School of Floral Design Principles of Floral Design Certification verifies individuals have acquired the knowledge and skills to pursue a sustainable career in the floral industry. The Texas Veterinary Medical Association Level 1 Certified Vet Assistant will educate veterinary assistants in the essential skills and knowledge needed to become effective contributors to the veterinary medical care team. The Elanco Fundamentals of Animal Science Certification verifies individuals have acquired the foundational knowledge and skills to pursue a career within the animal science industry. The Bayer Crop Science Plant Certification verifies individuals have acquired the knowledge and skills necessary to excel in a variety of plant, natural, and environmental science related fields.

## Industry Certifications

### **Animal Science**

#### ***Certified Veterinarian Assistant Level 1***

The TVMA Veterinary Assistant Training Program is standardized and documents the basic skills and competencies required for animal care and assistance. The program will educate veterinary assistants in the essential skills and knowledge needed to become effective contributors to the veterinary medical care team. The best thing about this program is it can be completed either in a clinic or a TVMA approved educational program.

#### ***OSHA 30 Hour General Industry***

The OSHA Outreach Training Program provides workers with basic and more advanced training about common safety and health hazards on the job. Students receive an OSHA 30-hour course completion card at the end of the training.

### **Plant Science**

#### ***Texas State Floral Association Level 1 Floral Certification***

The Texas State Floral Association Level One Floral Certification exam includes competencies such as understanding industry-specific vocabulary, plant identification, and common and scientific names of plants. In addition to the written exam, testers will be asked to complete a nine carnation triangle hands on design and a rose boutonniere hands on design. The following principles and elements of floral design should be considered as a tester designs the hands-on projects for the certification; Balance, Mechanics, Proportion/Scale, Depth/Rhythm, Focal Point, Dominance, Skeleton, Foliage, Unity, Form and Line.