

COMANCHE HIGH SCHOOL

2024-2025 PROGRAM OF STUDIES



2024-2025 School Year

PROGRAM OF STUDIES

ANIMAL SCIENCE

**AUTOMOTIVE & COLLISON
REPAIR**

**COSMETOLOGY & PERSONAL CARE
SERVICES**

**DIAGNOSTIC & THERAPEUTIC
SERVICES**

FAMILY & COMMUNITY SERVICES

PLANT SCIENCE

TEACHING & TRAINING

WELDING





Comanche High School

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: Animal Science

The Animal Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of animals and other living organisms. This program of study includes applying 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 will research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.



Secondary Courses for High School Credit

- Level 1**
 - Principles of Agriculture, Food, and Natural Resources
- Level 2**
 - Small Animal Management
 - Equine Science
- Level 3**
 - Livestock Production
 - Students will attempt an IBC during this year
- Level 4**
 - Advanced Animal Science
 - Scientific Research and Design
 - 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

Dual Credit

Dual credit offerings will vary by local education agency. At Comanche High School we offer a dual credit option for Advanced Animal Science through Tarleton State University. (Some fees and tuition may apply)

Students should be advised to consider these course opportunities to enrich their preparation.



Example Postsecondary Opportunities

Apprenticeships

- Reproduction Technician

Associate Degrees

- Biological and Physical Sciences
- Entomology

Bachelor's Degrees

- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees

- Marine Sciences
- Biotechnology

Additional Stackable IBCs/License

- Veterinarian
- Certified Veterinary Technician



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow an animal scientist in a biology lab to learn about applying science to understand animals and wildlife
- Intern in a veterinary clinic, caring for animals and wildlife being treated in the clinic

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

- Agricultural Biotechnology
- AgriLife Veterinary Assistant Certificate
- Certified Veterinary Assistant, Level I
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Equine Management and Evaluation Certification
- Feedyard Technician in Cattle Care and Handling
- Licensed Veterinary Technician
- Production Agriculture - Job Ready
- Small Animal Science and Technology



Example Aligned Occupations

Veterinary Assistants and Laboratory Animal Caretakers

Median Wage: \$29,906
Annual Openings: 1,348
10-Year Growth: 24%

Veterinary Technologists and Technicians

Median Wage: \$33,679
Annual Openings: 1,217
10-Year Growth: 24%

Veterinarian

Median Wage: \$103,160
Annual Openings: 347
10-Year Growth: 26%





Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: *Animal Science*

Course Information

Course	Prerequisites Corequisites	Career Clusters
Level 4 Advanced Animal Science 13000700 (1 credit)	Prerequisites: Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production Corequisites: None Recommended Prerequisites: Veterinary Medical Applications Recommended Corequisites: None	
Veterinary Medical Applications 13000600 (1 credit)	Prerequisites: Equine Science, Small Animal Management, or Livestock Production Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Veterinary Medical Applications + Agricultural Laboratory and Field Experience 13000610 (2 credits)	Prerequisites: Equine Science, Small Animal Management, or Livestock Production 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	

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* 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>



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Comanche High School

Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics career cluster focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility maintenance. This career cluster includes occupations ranging from automotive mechanic, avionics technician, and automotive entrepreneur to pilots and logistics planning professionals.

Statewide Program of Study: Automotive and Collision Repair

The Automotive and Collision Repair program of study focuses on the occupational and educational opportunities associated with servicing, repairing, and refinishing various types of vehicles. This program of study includes diagnosing and servicing vehicles and learning about processes, technologies, and materials used in reconstructing vehicles.



Secondary Courses for High School Credit

- Level 1** • Small Engine Technology I
- Level 2** • Small Engine Technology II
 - Students will attempt ASE certification during this year
- Level 3** • Automotive Technology I: Maintenance and Light Repair
- Level 4** • Automotive Technology II: Automotive Service
 - Practicum in Transportation Systems + Extended Practicum in Transportation Systems
 - 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
 - Students will attempt ASE certification during this year

Aligned Advanced Academic Courses

Dual Credit

While dual credit courses are not offered for this program of study, students have an opportunity to attend a summer training at UTI for college credit and certifications.

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 an automotive technician at a car dealership
- Intern at a rental car company and assist technicians with vehicle maintenance
- Work at a local automotive repair shop and hold both customer service duties and automatic repair duties

Expanded Learning Opportunities

- Join a related automotive association and attend events
- Participate in SkillsUSA

Aligned Industry-Based Certifications

- ASE Entry-Level Automobile Maintenance and Light Repair (MR)
- ASE Entry-Level Automobile Automatic Transmission/Transaxle (AT)
- ASE Entry-Level Automobile Brakes (BR)
- ASE Entry-Level Automobile Electronic/Electrical Systems (EE)
- ASE Entry-Level Automobile Engine Performance (EP)
- ASE Entry-Level Automobile Engine Repair (ER)
- ASE Entry-Level Automobile Heating and Air Conditioning (AC)
- ASE Entry-Level Automobile Manual Drive Train and Axles (MD)
- ASE Entry-Level Automobile Service Technology
- ASE Entry-Level Automobile Suspension and Steering (SS)
- ASE Entry-Level Collision Mechanical and Electrical Components (ME)
- ASE Entry-Level Collision Non-Structural Analysis and Damage Repair (SR)
- ASE Entry-Level Collision Painting and Refinishing (PR)
- ASE Entry-Level Collision Structural Analysis and Damage Repair
- ASE Refrigerant Recovery and Recycling
- Principles of Small Engine Technology Certification
- Small Engine Technology
- Industrial Technology Maintenance (ITM) - Basic Mechanical Systems
- Industrial Technology Maintenance (ITM) - Maintenance Operations
- Industrial Technology Maintenance (ITM) - Electrical Systems
- Industrial Technology Maintenance (ITM) - Maintenance Welding
- Industrial Technology Maintenance (ITM) - Basic Pneumatic Systems



Example Postsecondary Opportunities

Apprenticeships

- Automotive Technician Apprenticeship



Associate Degrees

- Automobile/Automotive Mechanics Technology
- Autobody/Collision and Repair Technology

Bachelor's Degrees

- Autobody/Collision and Repair Technology
- Heavy Equipment Maintenance Technology

Additional Stackable IBCs/License

- Automobile and Light Truck Certification (A1 – A9)



Example Aligned Occupations

Automotive Service Technicians and Mechanics

Median Wage: \$44,809
Annual Openings: 6,285
10-Year Growth: 10%

Bus and Truck Mechanics and Diesel Engine Specialists

Median Wage: \$50,967
Annual Openings: 3,096
10-Year Growth: 19%

First-Line Supervisors of Mechanics, Installers, and Repairers

Median Wage: \$66,535
Annual Openings: 5,019
10-Year Growth: 19%

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>

Transportation, Distribution, and Logistics Career Cluster

Statewide Program of Study: Automotive and Collision Repair

Course Information

Level 2	Course	Prerequisites Corequisites	Career Clusters
	Collision Repair + Advanced Transportation Systems Laboratory 13039810 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Basic Collision Repair and Refinishing Recommended Corequisites: None	
Level 3	Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	    
	Energy and Power of Transportation Systems 13039300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Transportation Systems Recommended Corequisites: None	
	Automotive Technology I: Maintenance and Light Repair 13039600 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Automotive Basics Recommended Corequisites: None	
	Paint and Refinishing 13039900 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Basic Collision Repair and Refinishing or Collision Repair Recommended Corequisites: None	

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* Indicates course is included in more than one program of study.


















































For additional information on the **Transportation, Distribution, and Logistics** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Transportation, Distribution, and Logistics Career Cluster

Statewide Program of Study: Automotive and Collision Repair

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Transportation Systems + Extended Practicum in Transportation Systems* First Time Taken: 13040455 (3 credits) Second Time Taken: 13040465 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None 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: Practicum in Entrepreneurship Recommended Prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	         
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	             

* Indicates course is included in more than one program of study.

For additional information on the **Transportation, Distribution, and Logistics** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Comanche High School - Human Services Career Cluster

The Human Services career cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs, such as counseling and mental health services, family and community services, personal care services, and consumer services. This career cluster includes occupations ranging from community health workers to cosmetologists and nutritionists.

Regional Program of Study: Cosmetology and Personal Care Services

Approved in ESC Regions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, & 20

**The list of approved ESC regions is updated every school year. Be sure to check the CTE regional program of study website for updates.*

The Cosmetology and Personal Care Services regional program of study focuses on occupational and educational opportunities associated with providing beauty and personal care services. This program of study includes managing personal care facilities and coordinating or supervising personal service workers.



Secondary Courses for High School Credit

- | | |
|----------------|---|
| Level 3 | <ul style="list-style-type: none"> • Cosmetology I • Barbering I |
| Level 4 | <ul style="list-style-type: none"> • Cosmetology II • Practicum in Entrepreneurship • Career Preparation for Programs of Study + Extended Career Preparation |

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local educational agency.

Students should be advised to consider these course opportunities to enrich their preparation. Students should also know that this program is offered in a partnership with Gorman ISD and students must attend classes in Gorman, Tx. Transportation is offered for these classes. In addition, *students are required to supply tools and kit for the program at the cost of the student.*

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Work part-time in a salon, spa, or barbershop
- Participate in an apprenticeship at a salon to become an apprentice stylist

Expanded Learning Opportunities

- Tour a salon, spa, or barbershop
- Participate in SkillsUSA (All students will participate in this opportunity. (some fees apply))

Aligned Industry-Based Certifications

- | | |
|-----------------------------------|----------------------------------|
| • Barber Operator License | • Cosmetology Manicurist License |
| • Cosmetology Esthetician License | • Cosmetology Operator License |



Example Postsecondary Opportunities

Apprenticeships

- Apprentice Stylist

Associate Degrees

- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License

- Class A Barber
- Eyelash Extension Specialist
- Hair Weaving Specialist



Example Aligned Occupations

Hairdressers, Hairstylists, and Cosmetologists

Median Wage: \$27,286
Annual Openings: 8,014
10-Year Growth: 25%

Skincare Specialists

Median Wage: \$35,112
Annual Openings: 778
10-Year Growth: 38%

First-Line Supervisors of Personal Service Workers

Median Wage: \$36,795
Annual Openings: 2,253
10-Year Growth: 29%

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>



Human Services Career Cluster

Regional Program of Study: Cosmetology and Personal Care Services

Course Information

Level 4	Course	Prerequisites Corequisites	Career Clusters
	Cosmetology II 13025300 (2 credits)	Prerequisites: Cosmetology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Cosmetology II + Cosmetology II Lab 13025310 (3 credits)	Prerequisites: Cosmetology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Barbering II N1302535 (3 credits)	Prerequisites: Barbering I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship 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 Entrepreneurship II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
	Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE program of study 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 program of study Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Human Services** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Comanche High School - Health Science Career Cluster

The Health Science career cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Statewide Program of Study: *Diagnostic and Therapeutic Services*

The Diagnostic and Therapeutic Services program of study focuses on occupational and educational opportunities associated with diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study includes exploration of patient treatment and rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.



Secondary Courses for High School Credit

- Level 1**
 - Principles of Health Science
- Level 2**
 - Medical Terminology
- Level 3**
 - Anatomy and Physiology
 - Health Science Theory
 - Health Science Theory + Health Science Clinical
 - Students will attempt an IBC during this year
- Level 4**
 - Practicum in Health Science
 - Practicum in Health Science + Extended Practicum in Health Science
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation
 - Students will attempt an IBC during this year

Aligned Advanced Academic Courses

- Dual Credit** Dual credit offerings are not offered at Comanche High School for this program of study.

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

- | | |
|---|---|
| <p>Work-Based Learning Activities</p> | <ul style="list-style-type: none"> Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job |
| <p>Expanded Learning Opportunities</p> | <ul style="list-style-type: none"> Participate in Health Occupation Students of America (HOSA) or SkillsUSA Participate in Clinical Rotations with the local community with partnering health care facilities. |

Aligned Industry-Based Certifications (IBC)

- Certified Clinical Medical Assistant – Possible option in 25/26 school year
- Certified Nurse Aide (CNA)
- Emergency Medical Technician–Basic – Possible option in 25/26 school year
- Pharmacy Technician – Possible option in 25/26 school year
- Phlebotomy Technician – Possible option in 25/26 school year



Example Postsecondary Opportunities

Apprenticeships

- Medical Assistant

Associate Degrees

- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees

- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Medicine
- Occupational Therapy

Additional Stackable IBCs/License

- Registered Diagnostic Medical Sonographer



Example Aligned Occupations

Medical Assistants

Median Wage: \$36,834
Annual Openings: 11,638
10-Year Growth: 29%

Dental Hygienists

Median Wage: \$79,663
Annual Openings: 1,352
10-Year Growth: 32%

Physician Assistants

Median Wage: \$127,332
Annual Openings: 974
10-Year Growth: 41%

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>



Health Science Career Cluster

Statewide Program of Study: *Diagnostic and Therapeutic Services*

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 2	Dental Anatomy and Physiology N1302122 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology and Introduction to Dental Science Recommended Corequisites: None	
	Disaster Response N1303011 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended Corequisites: None	 
	Imaging Technology I N1302123 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Introduction to Imaging Technology Recommended Corequisites: None	
	Pharmacy I 13021020 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology, Introduction to Pharmacy Science, or Principles of Health Science Recommended Corequisites: None	
	Course	Prerequisites Corequisites	Career Clusters
Level 3	Anatomy and Physiology* 13020600 (1 credit)	Prerequisites: One credit in Biology and one credit in Chemistry, Integrated Physics and Chemistry, or Physics Corequisites: None Recommended Prerequisites: A course from the Health Science career cluster Recommended Corequisites: None	 
	Medical Microbiology* 13020700 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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* Indicates course is included in more than one program of study.

For additional information on the **Health Science** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



Health Science Career Cluster

Statewide Program of Study: *Diagnostic and Therapeutic Services*

Course Information

Level 3	Course	Prerequisites Corequisites	Career Clusters
	Imaging Technology II N1302131 (2 credits)	Prerequisites: Imaging Technology I Corequisites: None Recommended Prerequisites: Introduction to Imaging Technology Recommended Corequisites: None	
	Pharmacy II 13021030 (2 credits)	Prerequisites: One credit in Biology, one credit in Chemistry, and Pharmacy I Corequisites: None Recommended Prerequisites: Algebra I, Introduction to Pharmacy Science, and Pharmacy I Recommended Corequisites: None	
Level 4	Course	Prerequisites Corequisites	Career Clusters
	Mathematics for Medical Professionals* 13020970 (1 credit)	Prerequisites: Geometry and Algebra II Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Pathophysiology* 13020800 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a Level 2 or higher course from the Health Science career cluster Corequisites: None Recommended Prerequisites: Anatomy and Physiology Recommended Corequisites: None	
	Pharmacology* 13020950 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a Level 2 or higher course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Respiratory Therapy II 13021122 (1 credit)	Prerequisites: Respiratory Therapy I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Optical Technician N1302126 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology or Principles of Health Science Recommended Corequisites: None	

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Comanche High School - Human Services Career Cluster

The Human Services career cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs, such as counseling and mental health services, family and community services, personal care services, and consumer services. This career cluster includes occupations ranging from community health workers to cosmetologists and nutritionists.

Statewide Program of Study: Family and Community Services

The Family and Community Services program of study focuses on occupational and educational opportunities associated with social services, including child and human development and consumer sciences. This program of study includes managing social and community services, managing family and consumer sciences, and understanding career paths in social work or therapy for children, families, or school communities.



Secondary Courses for High School Credit

- Level 1**
 - Principles of Human Services
 - Professional Communications
- Level 2**
 - Child Development
- Level 3**
 - Family and Community Services
 - Counseling and Mental Health
- 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

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

- Participate in a community health worker apprenticeship at a community health center
- Shadow a social worker in a community non-profit organization to learn about providing social and community services

Expanded Learning Opportunities

- Participate in FCCLA

Aligned Industry-Based Certifications

- Child Development Associate (CDA)
- Community Health Worker



Example Postsecondary Opportunities

Apprenticeships

- Community Health Worker Apprentice

Associate Degrees

- Social Work
- Human Development and Family Studies

Bachelor's Degrees

- Social Work
- Human Development and Family Studies

Master's, Doctoral, and Professional Degrees

- Mental Health Counseling
- Marriage and Family Therapy

Additional Stackable IBCs/License

- Certified Diabetes Educator



Example Aligned Occupations

Community Health Workers

Median Wage: \$39,520
Annual Openings: 501
10-Year Growth: 25%

Social and Human Service Assistants

Median Wage: \$38,442
Annual Openings: 3,298
10-Year Growth: 21%

Child, Family, and School Social Workers

Median Wage: \$49,398
Annual Openings: 2,342
10-Year Growth: 14%































Human Services Career Cluster

Statewide Program of Study: Family and Community Services

Course Information

Level 2	Course	Prerequisites Corequisites	Career Clusters
	Interpersonal Studies* 13024400 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services, Principles of Hospitality and Tourism, Principles of Health Science, or Principles of Education and Training Recommended Corequisites: None	 
	Social and Community Services N1302543 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Community Services 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
	Family and Community Services* 13024900 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None	
	Counseling and Mental Health* 13024600 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None	 
Level 4	Course	Prerequisites Corequisites	Career Clusters
	Career and Technical Education Project-Based Capstone First-Time Taken: 12701101 (1 credit) <i>Continued on next page</i>	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 Human Services career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



Comanche High School

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: Plant Science

The Plant Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of plants and other living organisms. This program of study includes the application of biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.



Secondary Courses for High School Credit

- | | |
|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Agriculture, Food, and Natural Resources |
| Level 3 | <ul style="list-style-type: none"> Floral Design – <ul style="list-style-type: none"> Students will attempt an IBC listed below during this year |
| Level 4 | <ul style="list-style-type: none"> Advanced Floral Design Advanced Plant and Soil Science 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

Dual Credit Dual credit offerings will vary by local education 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 | <ul style="list-style-type: none"> Work in a part-time job at a landscaping company to learn about production and management of plants. Intern at an agricultural research company, working alongside a biological technician to learn about application of biology to plant production |
| Expanded Learning Opportunities | <ul style="list-style-type: none"> Participate in an FFA career, leadership, and speaking contest like an agriscience fair Participate in an industry-related competition like an agriscience fair |

Aligned Industry-Based Certifications (IBC)

Texas State Florists' Association Knowledge Based Floral Certification— Student will have the opportunity to complete this Industry Based Certification at the end of year two in this program of study.



Example Postsecondary Opportunities

Apprenticeships

- Horticulturist

Associate Degrees

- Biology/Biological Sciences
- Biological and Physical Sciences

Bachelor's Degrees

- Horticulture
- Plant Pathology/Phytopathology

Master's, Doctoral, and Professional Degrees

- Plant Breeding
- Botany/Plant Biology

Additional Stackable IBCs/License

- Nursery Floral License
- Horticulturist Certification



Example Aligned Occupations

Pesticide Handlers, Sprayers, and Applicators, Vegetation

Median Wage: \$46,153
Annual Openings: 205
10-Year Growth: 17%

Biological Technicians

Median Wage: \$45,787
Annual Openings: 879
10-Year Growth: 14%

Farmers, Ranchers, and Other Agricultural Managers

Median Wage: \$65,490
Annual Openings: 28,020
10-Year Growth: 4%









Agriculture, Food, and Natural Resources Career Cluster













Statewide Program of Study: *Plant Science*

Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Horticultural Science 13002000 (1 credit)	Prerequisites: At least one credit in a course from the AFNR career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Horticultural Science + Agricultural Laboratory and Field Experience 13002010 (2 credits)	Prerequisites: At least one credit in a course from the AFNR career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Floral Design 13001800 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Floral Design + Agricultural Laboratory and Field Experience 13001810 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 4

Course	Prerequisites Corequisites	Career Clusters
Advanced Plant and Soil Science 13002100 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology, Integrated Physics and Chemistry, Chemistry, or Physics and a minimum of one credit in a course from the AFNR career cluster Recommended Corequisites: None	
Advanced Floral Design N1300270 (1 credit)	Prerequisites: Floral Design 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	         

Continued on next page

* 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>









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Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: *Plant Science*

Course Information

Course	Prerequisites Corequisites	Career Clusters
Scientific Research and Design* 13037200 (1 credit)	Prerequisites: Biology, Chemistry, Integrated Physics and Chemistry (IPC), or Physics Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	     

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Comanche High School

Education and Training Career Cluster

The Education and Training career cluster focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster. This career cluster includes a diverse spectrum of occupations, ranging from teaching assistant, classroom teacher, to school administrator.

Statewide Program of Study: Teaching and Training

The Teaching and Training program of study focuses on occupational and educational opportunities associated with careers related to teaching, instructing, and creating instructional and enrichment materials. The program of study includes recognizing a variety of student groups and their corresponding needs, identifying processes for developing curriculum and coordinating educational content, and coaching groups and individuals.



Secondary Courses for High School Credit

- Level 1**
 - Principles of Education and Training
 - Principles of Human Services
- Level 2**
 - Child Development
- Level 3**
 - Instructional Practices
- Level 4**
 - Practicum in Education and Training
 - Practicum in Education and Training + Extended Practicum in Education and Training
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation
 - Students will earn their IBC during this year

Aligned Advanced Academic Courses

Dual Credit

Students can participate and enroll in a dual credit course during the 3rd year of the program for Instructional Practices. Comanche High School is partnered with Tarleton State University for this program.

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

- Serve as a camp counselor to learn mentoring, facilitation, and lesson planning skills
- Volunteer in a tutoring center to learn lesson planning and skills assessment
- Participate in campus teaching through the Elementary Campus to learn mentoring, facilitation, and lesson planning skills

Expanded Learning Opportunities

- Participate in TAFE

Aligned Industry-Based Certifications

- Educational Aide I



Example Postsecondary Opportunities

Apprenticeships

- Teacher Apprentice

Associate Degrees

- Adult and Continuing Education and Teaching
- Educational/Instructional Technology

Bachelor's Degrees

- Elementary Education and Teaching
- Secondary Education and Teaching

Master's, Doctoral, and Professional Degrees

- Educational Leadership and Administration, General
- Curriculum and Instruction

Additional Stackable IBCs/License

- Generalist, Grades EC-4



Example Aligned Occupations

Teaching Assistants, Except Postsecondary

Median Wage: \$28,066

Annual Openings: 10,000

10-Year Growth: 15%

Secondary School Teachers, Except Special Education and CTE

Median Wage: \$61,035

Annual Openings: 8,288

10-Year Growth: 14%

Education Administrators, Kindergarten through Secondary

Median Wage: \$81,976

Annual Openings: 2,676

10-Year Growth: 14%





Education and Training Career Cluster

Statewide Program of Study: Teaching and Training

Course Information

Course	Prerequisites Corequisites	Career Clusters
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 Education and Training First Time Taken: 13014500 (2 credits) Second Time Taken: 13014510 (2 credits)	Prerequisites: Instructional Practices Corequisites: None Recommended Prerequisites: Principles of Education and Training, Human Growth and Development, and Child Development Recommended Corequisites: None	
Practicum in Education and Training + Extended Practicum in Education and Training First Time Taken: 13014505 (3 credits) Second Time Taken: 13014515 (3 credits)	Prerequisites: Instructional Practices Corequisites: Practicum in Education and Training Recommended Prerequisites: Principles of Education and Training and Human Growth and Development Recommended Corequisites: None	
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 for Programs of Study* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Education and Training** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Comanche High School - Manufacturing Career Cluster

The Manufacturing career cluster focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and process engineering. This career cluster includes occupations ranging from welder and machinist to industrial engineering technician and semi-conductor processing technician.

Statewide Program of Study: Welding

The Welding Program of Study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. CTE learners will learn how to modify parts to make or repair machine tools or maintain individual machines and how to use hand-welding or flame-cutting equipment.



Secondary Courses for High School Credit

- Level 1**
 - Introduction to Welding – Students will attempt to complete an IBC (Listed below)
- Level 2**
 - Welding I –
 - Students will attempt to complete an IBC (Listed below)
- Level 3**
 - Welding II –
 - Students will attempt to complete an IBC (Listed below)
- Level 4**
 - Practicum in Entrepreneurship
 - Career Preparation for Programs of Study
 - Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship

Aligned Advanced Academic Courses

Dual Credit

Dual credit welding is offered in partnership with Ranger College. Some fees and costs to the student may apply if entering this program.

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

- Job shadow a welder
- Intern for a local welding company

Expanded Learning Opportunities

- Participate in a welding project that benefits the community – All students are required to complete a minimum of two welding projects each year. Projects are determined between the student and instructor.

Aligned Industry-Based Certifications

- API 1104 Welding Pipelines and Related Facilities
- AWS Certified Welder
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level I: Entry Welder
- Industrial Technology Maintenance (ITM)
- Maintenance Welding
- NCCER Construction Technology Certification Level I
- NCCER Core
- NCCER Welding Level I
- Welding – Job Ready



Example Postsecondary Opportunities

Apprenticeships

- Welding

Associate Degrees

- Welding Technology
- Building/Construction Site Management
- Operations Management and Supervision

Bachelor's Degrees

- Welding Technology
- Construction Management
- Project Management
- Building/Construction Site Management

Master's, Doctoral, and Professional Degrees

- Engineering
- Engineering/Industrial Management
- Manufacturing Engineering
- Construction Engineering



Example Aligned Occupations

Welders, Cutters, Solderers, and Brazers

Median Wage: \$48,177
Annual Openings: 6,792
10-Year Growth: 23%

First-Line Supervisors of Production and Operating Workers

Median Wage: \$62,584
Annual Openings: 5,926
10-Year Growth: 17%

Industrial Production Managers

Median Wage: \$119,691
Annual Openings: 1,296
10-Year Growth: 19%




Manufacturing Career Cluster

Statewide Program of Study: Welding

Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Welding II + Welding II Lab 13032410 (3 credits)	Prerequisites: Welding I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 4

Course	Prerequisites Corequisites	Career Clusters
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Practicum in Manufacturing*
 First Time Taken:
 13033000 (2 credits)
 Second Time Taken:
 13033010 (2 credits)

Prerequisites: None
Corequisites: None
Recommended Prerequisites: None
Recommended Corequisites: None



Practicum in Manufacturing + Extended Practicum in Manufacturing*
 First Time Taken:
 13033005 (3 credits)
 Second Time Taken:
 13033015 (3 credits)

Prerequisites: None
Corequisites: None
Recommended Prerequisites: None
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



Continued on next page

* Indicates course is included in more than one program of study.

For additional information on the **Manufacturing** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>