



# TOMBALL ISD

## CTE PLANNING GUIDE



2024 - 2025

# TABLE OF CONTENTS

Tomball ISD Programs of Study Chart .....	1-3
Tomball CTE Course Index .....	4-9
Additional Graduation Information .....	10
Endorsement Choices .....	11
<b>Programs of Study:</b>	
<b>Accounting &amp; Financial Services .....</b>	<b>12</b>
<b>Animal Science .....</b>	<b>13</b>
<b>Agricultural Technology &amp; Mechanical Systems .....</b>	<b>14</b>
<b>Architectural Drafting &amp; Design .....</b>	<b>15</b>
<b>Audio/Video Production .....</b>	<b>16</b>
<b>Aviation Maintenance .....</b>	<b>17</b>
<b>Aviation Pilots .....</b>	<b>18</b>
<b>Business Management .....</b>	<b>19</b>
<b>Computer Science .....</b>	<b>20</b>
<b>Construction Technology .....</b>	<b>21</b>
<b>Culinary Arts .....</b>	<b>22</b>
<b>Cybersecurity .....</b>	<b>23</b>
<b>Dentistry .....</b>	<b>24</b>
<b>Electrical Technology .....</b>	<b>25</b>
<b>Emergency Medicine (EMT) .....</b>	<b>26</b>
<b>Engineering Foundations .....</b>	<b>27</b>
<b>Game &amp; App Development .....</b>	<b>28</b>
<b>Graphic Design &amp; Interactive Media .....</b>	<b>29</b>
<b>Law Enforcement .....</b>	<b>30</b>
<b>Legal Studies .....</b>	<b>31</b>
<b>Marketing &amp; Sales .....</b>	<b>32</b>
<b>Nursing .....</b>	<b>33</b>
<b>Pharmacy .....</b>	<b>34</b>
<b>Plant &amp; Floral Science .....</b>	<b>35</b>
<b>Robotics .....</b>	<b>36</b>
<b>Teaching &amp; Training .....</b>	<b>37</b>
<b>Welding .....</b>	<b>38</b>
Industry Based Certifications .....	39
CTE Non-Discrimination Statement .....	40

This catalog is subject to change based on student interest / enrollment, state requirements, course availability, and industry-based certification recommendations.



**Step 1:** Choose a "Career Pathway" to explore.

**Step 2:** Select a course at the appropriate level. (9th graders must begin at Level 1)

**Step 3:** Note the type of graduation endorsement(s) that could be earned by completing the pathway.

Business and Industry Endorsement Options (Career Pathways designated with ^ will also earn a STEM Endorsement as long as the appropriate Math and Science requirements are met.)						
Career Pathway	Junior High Jumpstart	Level 1	Level 2	Level 3	Level 4	
Accounting & Financial Services →	Business Information Management I (1)	Business Information Management I+ (1) OR Money Matters (1)	Accounting I (1) OR Financial Mathematics (1)	Accounting II* (1)	Practicum - Accounting* (2)	
Animal Science ^ →	Business Information Management I (1)	Principles of Agriculture, Food & Natural Resources (1)	Small Animal Management (.5) AND/OR Equine Science (.5)	Advanced Animal Science* (1) OR Livestock Production (1) OR Veterinary Medical Applications* (1)	Practicum - Animal Science* (2) OR Practicum - Veterinary* (2)	
Agricultural Technology and Mechanical Systems^ →	Business Information Management I (1)	Principles of Agriculture, Food & Natural Resources (1)	Ag Mechanics & Metal Technologies+ (1) AND Optional Lab (1)	Ag Structures, Design, & Fabrication+ (1) AND Optional Lab (1)	Ag Equipment Design & Fabrication+ (1) OR Practicum - Agriculture Technology & Mechanical Systems* (2)	
Architectural Drafting and Design ^ →	Introduction to Computer-Aided Drafting (1)	Principles of Architecture (1)	Architectural Design I+* (1)	Architectural Design II+* (2)	Practicum - Architectural Drafting & Design* (2)	
Audio/Video Production →	Digital Media (1)	Principles of Arts, A/V Tech, & Communications (1)	Audio Video Production I+ (1)	Audio Video Production II* (1)	Practicum - Audio Video Production* (2)	
Aviation Maintenance^ →	Engineering Essentials (1)	Introduction to Aircraft Technology (1)	Aircraft Maintenance (1)	Aircraft Airframe Technology* (2)	Practicum - Aviation Maintenance* (2)	
Aviation Pilots^ →	Engineering Essentials (1)	Introduction to Aerospace and Aviation (1)	Introduction to Unmanned Aerial Vehicle Flight (1)	Aviation Ground School (1) AND Aviation Scientific Research and Design* (1)	Practicum - Pilots and Aviation Operation* (2)	
Business Management →	Business Information Management I (1)	Business Information Management I+ (1) OR Principles of Business, Marketing, & Finance (1) OR Business Information Management II* (1) if prereq. is met	Business Information Management II* (1) OR Business Management (1) OR BUSI 1301(3)	Business Law (1) OR Business Management (1) OR BUSI 1301(3)	Statistics & Business Decision Making* (1) OR Practicum - Business Management* (2)	
Computer Science ^	TRACK 1 →	Business Information Management I (1)	TAP Computer Science I* (1)	AP Computer Science A+ (2 credits- Math and LOTE, 1 period)	TAP Computer Science II* (1)	TAP Computer Science III* (1)
	TRACK 2 →	Business Information Management I (1)	Fundamentals of Computer Science (1)	TAP Computer Science I* (1)	AP Computer Science A+ (2 credits- Math and LOTE, 1 period)	TAP Computer Science II* (1)
Construction Technology →	Introduction to Computer-Aided Drafting (1)	Principles of Architecture (1)	Construction Technology I+ (2)	Construction Technology II* (2)	Practicum - Construction Technology* (2)	

\* Required Prerequisite

+ Recommended Prerequisite

^ Eligible for Possible STEM Endorsement



**Step 1:** Choose a "Career Pathway" to explore.

**Step 2:** Select a course at the appropriate level. (9th graders must begin at Level 1)

**Step 3:** Note the type of graduation endorsement(s) that could be earned by completing the pathway.

**Business and Industry Endorsement Options, Continued...**

Career Pathway	Junior High Jumpstart	Level 1	Level 2	Level 3	Level 4
<b>Culinary Arts</b> →	Principles of Hospitality and Tourism (1)	Intro. to Culinary Arts+ (1)	Culinary Arts + (2)	Advanced Culinary Arts* (2)	Food Science+* (1) OR Practicum - Culinary Arts* (2)
<b>Cybersecurity</b> ^ →	Business Information Management I (1)	Computer Science Essentials (1)	Foundations of Cybersecurity (1)	AP Computer Science Principles+ (S1) AND AP Computer Science A+ (Math and LOTE) (S2)	Practicum - Cybersecurity+* (2)
<b>Electrical Technology (Lone Star College-Creekside Center)</b> →	Engineering Essentials (1)				AC/DC Electronics+ (1) AND Electrical Technology I+ (2)
<b>Engineering Foundations</b> ^ →	Engineering Essentials (1)	Introduction to Engineering Design (1)	Engineering Science+* (1)	Aerospace Engineering (1) OR Digital Electronics* (1)	Engineering Design & Development+* (1)
<b>Game and App Development</b> ^	TRACK 1 → Business Information Management I (1)	TAP Computer Science I* (1)	AP Computer Science A+ (2 credits- Math and LOTE, 1 period)	TAP Game Programming and Design* (1)	TAP Mobile App Dev* (1)
	TRACK 2 → Business Information Management I (1)	Fundamentals of Computer Science (1)	TAP Computer Science I* (1)	AP Computer Science A+ (2 credits- Math and LOTE, 1 period)	TAP Game Programming and Design* (1)
<b>Graphic Design and Interactive Media</b> →	Digital Media (1)	Principles of Arts, A/V Tech, & Communications (1)	Graphic Design I+ (1)	Graphic Design II with Lab* (2)	Practicum - Graphic Design* (2)
<b>Marketing and Sales</b> →	Business Information Management I (1)	Principles of Business Marketing & Finance (1)	Sports & Entertainment Marketing I+ (.5) AND/OR Fashion Marketing+ (.5)	Social Media Marketing+ (.5) AND/OR Advertising+ (.5) AND/OR Marketing I+(1)	Practicum - Marketing* (2)
<b>Plant &amp; Floral Science</b> ^ →	Business Information Management I (1)	Principles of Agriculture, Food & Natural Resources (1)	Greenhouse Operation and Production (1) OR Floral Design (1)	Horticulture Science (1) OR Advanced Floral Design* (1)	Advanced Plant & Soil Science+ (1)
<b>Robotics</b> ^ →	Engineering Essentials (1)	Robotics I+ (1)	Robotics II* (1)	Scientific Research and Design* (1)	Practicum - Robotics* (2)
<b>Welding</b> →	Engineering Essentials (1)	Introduction to Welding+ (1)	Welding I+ (2)	Welding II* (2)	Practicum - Welding* (2)

\* Required Prerequisite

+ Recommended Prerequisite

^ Eligible for Possible STEM Endorsement



**Step 1:** Choose a "Career Pathway" to explore.

**Step 2:** Select a course at the appropriate level. (9th graders must begin at Level 1)

**Step 3:** Note the type of graduation endorsement(s) that could be earned by completing the pathway.

<b>PUBLIC SERVICE Endorsement Options</b>					
<i>(Career Pathways designated with ^ will earn also earn a STEM Endorsement as long as the appropriate Math and Science requirements are met.)</i>					
<b>Career Pathway</b>	<b>Junior High Jumpstart</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
<b>Dentistry ^</b> →	Business Information Management I (1)	Principles of Health Science (1)	Medical Terminology (1)	Health Science Theory* (1) OR Health Science Clinicals & Theory* (2)	Practicum - Dentistry* (2) AND/OR Anatomy & Physiology +* (1)
<b>Emergency Medicine ^</b> →	Business Information Management I (1)	Principles of Health Science (1)	Medical Terminology (1)	Health Science Theory* (1) OR Health Science Clinicals & Theory* (2)	Practicum - Emergency Medicine* (2) AND/OR Anatomy & Physiology +* (1)
<b>Junior ROTC</b> <small>*Note that, although Junior ROTC is not a CTE Program of Study, students can earn a Public Service Endorsement by completing the required sequence of courses</small> →	LOTG (1)	JROTC I (1)	JROTC II* (1)	JROTC III* (1)	JROTC IV* (1)
<b>Law Enforcement</b> →	Business Information Management I (1)	Principles of Law (1)	Law Enforcement I+ (1)	Law Enforcement II+ (1) AND Criminal Investigation+ (1)	Practicum - Law Enforcement* (2)
<b>Legal Studies</b> →	Business Information Management I (1)	Principles of Law (1)	Court Systems and Practice+ (1)	Advanced Legal Skills and Professions+ (1) AND Legal Research and Writing+ (1)	Practicum - Legal Studies* (2)
<b>Nursing ^</b> →	Business Information Management I (1)	Principles of Health Science (1)	Medical Terminology (1)	Health Science Theory* (1) OR Health Science Clinicals & Theory* (2)	Practicum - Nursing* (2) AND/OR Anatomy & Physiology+* (1)
<b>Pharmacy ^</b> →	Business Information Management I (1)	Principles of Health Science (1)	Medical Terminology (1)	Health Science Theory* (1) OR Health Science Clinicals & Theory* (2)	Practicum - Pharmacy* (2) AND/OR Anatomy & Physiology+* (1)
<b>Teaching &amp; Training</b> →	Principles of Human Services (1)	Principles of Education & Training (1)	Human Growth & Development+ (1)	Instructional Practices+* (2)	Practicum - Teaching & Training+* (2)

\* Required Prerequisite

+ Recommended Prerequisite

^ Eligible for Possible STEM Endorsement

# TOMBALL CTE COURSE INDEX



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Program of Study (POS)	Course Title	Course#	Credit	Level	Grade Level				Pre-requisite(s)	Core Credit	\$ Fee	Alternate Location
					9	10	11	12				
Accounting & Financial Services	Money Matters	BUS1200	1	1	●	●						
	Bus.Info. Mgt (BIM) I	CMP1120	1	1	●	●	●	●				
	Financial Math	MTH5300	1	2		●	●	●	Algebra 1	Math		
	Accounting I	BUS1520	1	2		●	●	●				
	Accounting II	BUS1620	1	3		●	●	●	Accounting I	Math		
	Practicum Accounting	BUS4100	2	4				●	2 credits in POS			
Animal Science	Prin of Agriculture	AGR0000	1	1	●							
	Sm Animal Mgt	AGR1257	0.5	2		●	●					
	Equine Science	AGR1227	0.5	2		●	●					
	Livestock Prod/Lab	AGR3240	1	3		●	●	●				
	Adv Animal Science	AGR1220	1	3			●	●	Bio, Chem/IPC; Alg I, Geom; Sm Animal Mgmt & Equine Sc, or Livestock	Science		
	Veterinary Medical Applications	AGR3120	1	3			●	●	Sm Animal Mgmt, Equine Sc or Livestock			
	Pract Animal Science	AGR3130	2	4				●	2 credits in POS			
Agriculture Technology & Mechanical Sys	Prin of Agriculture	AGR0000	1	1	●							
	Ag Mechanics & Metal	AGR0320	1	2		●	●	●		\$50		
	Ag Mech & Metal LAB	AGR0330	2	2		●	●	●		\$50		
	Ag Struct Des & Fab	AGR0920	1	3			●	●		\$50		
	Ag Struct Des & Fab LAB	AGR0920	2	3			●	●		\$50		
	Ag Equip Des & Fab	AGR4450	1	4			●	●				
	Ag Equip Des & Fab LAB	AGR4450	2	4			●	●				
	Practicum Ag Tech Mech	AGR4200	2	4				●	2 credits in POS	\$50		
Architectural Drafting & Design	Prin of Architecture	ACS0120	1	1	●							
	Architecture Design I	ACS1020	1	2		●	●	●	Algebra I, Eng I			
	Architecture Design II	ACS1120	2	3			●	●	Arch Des I and Geometry			
	Practicum Architecture	ACS4000	2	4				●	Architectural Design II			
Audio/Video Production	Prin of Arts,AV,Tech Com	AVP1000	1	1	●							
	Audio Video Prod 1	AVP2000	1	2		●	●	●				
	Audio Video Prod II	AVP3000	2	3			●	●	Audio Video I			
	Practicum Audio Video	AVP4000	2	4				●	Audio Video II			
Aviation Maintenance	Intro Aircraft Tech	AVI2000	1	1	●	●	●	●				
	Aircraft Maintenance	AVI2200	1	2		●	●	●	Intro Aircraft Tech			
	Aircraft Airframe Tech+LAB	AVI3200	2	3			●	●	Intro Aircraft Tech		TIC Facility	
	Pract Aviation Maint	AVI4000	2	4				●	2 credits in POS		TIC Facility	

Program of Study (POS)	Course Title	Course#	Credit	Level	Grade Level				Pre-requisite(s)	Core Credit	\$ Fee	Alternate Location	
					9	10	11	12					
Aviation Pilot	Intro Aerospace & Avi	AVI1000	1	1	●	●	●						
	Intro Unman. Aerial Veh	AVI2300	1	2		●	●	●					
	Aviation Ground School	N1304675	2	Blocked 3			●	●	1 science credit	Science		TIC Facility	
	Aviation (SRD)	AVI3100											
	Pract Aviation Pilot	AVI4000	2	4				●	2 credits in POS			TIC Facility	
Business Management	Prin of Business,Mktg,Fin	BUS0000	1	1	●								
	Bus Info Mgt (BIM) I	CMP1120	1	1	●	●	●	●					
	Bus Info Mgt (BIM) II	CMP1220	1	2	●	●	●	●	BIM I				
	Business Management	BUS3340	1	3		●	●	●					
	DC Business Mgt	BUS3340D	1	3		●	●	●					
	Business Law	BUS1100	1	3			●	●					
	Stats & Bus Dec Mak	BUS4200	1	4			●	●	Algebra II	Math			
	Pract in Business Mgt	BUS4100	2	4				●	2 credits in POS				
Computer Science	Track 1- Algebra	Computer Science 1 TAP	COS1020Q	1	1	●	●	●	●	Algebra 1		\$20	
		AP Computer Science A+	COS1330P	1	2		●	●	●	Algebra 1, Comp Sc 1	Math		
		Computer Science II TAP	COS2200H	1	3		●	●	●	Algebra I, Comp Sc 1		\$20	
		Computer Science III TAP	COS3100H	1	4				●	Computer Sc II, AP Computer Sc		\$20	
	Track 2	Fund of Computer Sc	COS0000	1	1	●	●						
		Computer Science 1 TAP	COS1020Q	1	2	●	●	●	●	Algebra 1		\$20	
		AP Computer Science A+	COS1330P	1	3		●	●	●	Algebra 1, Comp Sc 1	Math		
		Computer Science II TAP	COS2200H	1	4		●	●	●	Algebra I, Comp Sc 1		\$20	
Construction Technology	Prin of Architecture	ACS0120	1	1	●								
	Construction Tech I	ACS2020	2	2		●	●	●					
	Construction Tech II	ACS2500	2	2			●	●	Construct.Tech I				
	Pract Construction	ACS4140	2	2				●	Construct.Tech II				
Culinary Arts	Intro to Culinary Arts	CUL2000	1	1	●	●					\$15		
	Culinary Arts	CUL3000	2	2		●	●	●			\$55		
	Advanced Culinary Arts	CUL4000	2	3			●	●	Culinary Arts		\$55		
	Food Science	CUL4010	1	4				●	Bio, Chem, +1 additional science	Science	\$15		
	Practicum-Culinary Arts	CUL4100	2	4				●	Culinary Arts		\$55		



Program of Study (POS)	Course Title	Course#	Credit	Level	Grade Level				Pre-requisite(s)	Core Credit	\$ Fee	Alternate Location	
					9	10	11	12					
Cybersecurity	Comp Sc Essentials TAP	CYB1100Q	1	1	●	●	●	●					
	Found Cybersecurity TAP	CYB2000Q	1	2		●	●	●					
	AP Comp Sc Principles	COS2000P	1	3			●	●	Algebra 1			TIC Facility	
	AP Computer Science A	COS1330P	1	3			●	●	Algebra 1, Comp Sc 1 or Comp Sc Essentials	Math			
	Practicum Cybersecurity	CY4000Q	1	4				●	2 credits in POS				
Electrical Technology	AC/DC Electronics	NRG1003D	1	2 Blocked			●	●				Lonestar Creekside 6th-7th (1:15-2:45) \$125 per sem fee	
	Electrical Technology 1	NRG2105D	2				●	●					
Engineering PLTW	Introduction to Engineering	STE0120H	1	1	●	●							
	Engineering Science TAP	STE0220H	1	2		●	●	●	Algebra 1,Bio, Intro Engineering	Science			
	Aeropspace Engineering TAP	STE3100H	1	3			●	●	Engineering Science				
	Digital Electronics TAP	STE3000H	1	3			●	●	Algebra 1, Geom	Math			
	Engineering Design & Dev TAP	STE4100H	1	4				●	Algebra 1,Bio, Chem, (IPC or Physics)				
Game & App Development	Track 1- Algebra												
	Computer Science 1 TAP	COS1020Q	1	1	●	●	●	●	Algebra 1		\$20		
	AP Computer Science A+	COS1330P	1	2		●	●	●	Algebra 1, Comp Sc 1	Math			
	Game Program&Des TAP	COS1700H	1	3		●	●	●	Algebra 1				
	Mobile App Develop TAP	COS4100H	1	4			●	●	Algebra 1				
	Track 2												
	Fund of Computer Sc	COS0000	1	1	●	●							
	Computer Science 1 TAP	COS1020Q	1	2		●	●	●	Algebra 1		\$20		
AP Computer Science A+	COS1330P	1	3		●	●	●	Algebra 1, Comp Sc 1	Math				
Game Program&Des TAP	COS1700H	1	4			●	●	Algebra 1					
Graphic Design	Prin Arts, AV,Tech, Com	AVP1000	1	1	●								
	Graphic Design 1	GDI1000	1	2		●	●	●					
	Graphic Design II/Lab	GDI2000	2	3			●	●	Graphic Design 1			TIC Facility	
	Pract Graphic Design	GDI3000	2	4				●	Graphic Design II			TIC Facility	
Marketing	Prin Business, Mktg& Fin	BUS0000	1	1	●								
	Sports & Entertain. Mktg	BUS0028	0.5	2		●	●	●					
	Fashion Marketing	BUS0043	0.5	2		●	●	●					
	Social Media Marketing	BUS0033	0.5	3			●	●					
	Advertising	BUS0123	0.5	3			●	●					
	Marketing 1	BUS3210	1	3			●	●	2 courses of POS				
	Practicum Marketing	MKT4200	2	4				●	2 credits in POS				

Program of Study (POS)	Course Title	Course#	Credit	Level	Grade Level				Pre-requisite(s)	Core Credit	\$ Fee	Alternate Location
					9	10	11	12				
Plant & Floral Science	Prin of Agriculture	AGR0000	1	1	●							
	Greenhouse Operation	AGR2820	1	2		●	●	●				
	Floral Design/Lab	AGR1320	1	2		●	●	●	Fine Art	\$50		
	Horticultural Science	AGR1310	1	3		●	●	●				
	Advanced Floral Design	AGR2310	1	3		●	●	●	Floral Design	\$50		
	Adv Plant & Soil Science	AGR4400	1	4		●	●	●		Science		
Robotics	Robotics I	ROB1000	1	1	●	●						
	Robotics II	ROB2000	1	2		●	●	●	Robotics 1			
	Robotics Res&Des (SRD)	ROB3100	1	3		●	●	●	Algebra 1,Bio, Chem, (IPC or Physics), Robotics II	Science		
	Practicum Robotics	ROB4100	2	4		●	●	●	Algebra I, Geometry, 2 credits in POS			
Welding	Introduction to Welding	MFG1300	1	1	●	●				\$50		
	Welding I	MFG2200	2	2		●	●			\$75		
	Welding II	MFG3200	2	3		●	●	●	Welding I	\$75		
	Practicum Welding	MFG4300	2	4		●	●	●	2 credits in POS	\$75		
Health Science	Prin of Health Science	HLT2000	1	1	●	●				\$15		
	Medical Terminology	HLT1000MT	1	2		●	●	●				
	Health Science Theory	HLT3100	1	3		●	●	●	Biology, +1 POS Course	\$15 +uniform		
	Health Science Clinicals	HLT2110	2	3		●	●	●	Biology	\$100 +uniform		
	Anatomy & Physiology	SCI4240	1	3		●	●	●	Bio & (Chem,IPC or Phys)	Science		
	DC Anatomy & Phys	SCI4240D	1	3		●	●	●	Bio & (Chem,IPC or Phys)	Science		
	Practicum Dentistry	HLT3620	2	4		●	●	●	Health Sc Theory, Biology, +1 additional POS credit	\$100 +uniform		
	Practicum Emergency Medicine	HLT3320	2	4		●	●	●	Health Sc Theory, Biology, +1 additional POS credit	\$75 +uniform		
	Practicum Nursing	HLT3520	2	4		●	●	●	Health Sc Theory, Biology, +1 additional POS credit	\$100 +uniform		
	Practicum Pharmacy	HLT3420	2	4		●	●	●	Health Sc Theory, Biology, +1 additional POS credit	\$65 +uniform +license		

Program of Study (POS)	Course Title	Course#	Credit	Level	Grade Level				Pre-requisite(s)	Core Credit	\$ Fee	Alternate Location
					9	10	11	12				
Law Enforcement	Principles of Law	LAW1000	1	1	●	●	●	●				
	Law Enforcement 1	LAW2000	1	2		●	●	●				
	Law Enforcement 2 and Criminal Investigation	LAW3100, LAW3200	2	3			●	●	Law Enforcement 1			TIC Facility
	Pract Law Enforcement	LAW4000	2	4				●	2 credits in POS			TIC Facility
	Forensic Science	SCI6600	1	4			●	●	Bio & (Chem,IPC or Phys)	Science		
Legal Studies	Principles of Law	LAW1000	1	1	●	●	●	●				
	Court Sys and Practices	LEG2000	1	2		●	●	●				
	Advanced Legal Skills/Professions and Legal Research/Writing	LEG3100, LEG3200	2	3			●	●				TIC Facility
	Practicum Legal Studies	LEG4000	2	4				●	2 credits in POS			TIC Facility
Teaching & Training	Prin Education & Training	TCH0120	1	1	●							
	Human Growth & Dev	TCH0220	1	2		●	●	●				
	Instructional Practices	TCH1220	2	3			●	●	At least 1 POS Credit		\$20	
	Pract Education & Train	TCH2120	2	4				●	Instructional Pract.		\$30	



**TOMBALL ISD**  
DESTINATION EXCELLENCE

# ADDITIONAL GRADUATION INFORMATION



## IMPORTANT ENDORSEMENT INFORMATION

Students will be able to earn one or more endorsements as part of their graduation requirements. An endorsement consists of a sequence of courses that are grouped together by interests and occupational skills. Students must select an endorsement upon entering ninth grade.

- In addition to the Foundation Plan requirements, all endorsements require the completion of four (4) math and four (4) science credits.
- Endorsements are originally decided in 8th grade and must be declared in writing or electronically.
- Students have until their sophomore year to change endorsements.

---

## PERSONAL GRADUATION PLAN

- Each student will have a 4-Year Personal Graduation Plan (PGP) created during 8th grade with the help of a school counselor.
- Parent participation is VITAL! Parents should discuss the plan with their child and approve the plan in writing or electronically before students register for their high school courses.
- Each year after, the PGP will be reviewed and updated according to the student's interests and needs.

---

## END OF COURSE (EOC) EXAM REQUIREMENTS

EOC assessments are administered for the following courses: English I, English II, Algebra I, Biology, and US History. Students take the assessments when they complete the course.

For additional information on requirements for STAAR and End of Course, please visit [www.tea.texas.gov/student-assessment/testing/staar/staar-resources](http://www.tea.texas.gov/student-assessment/testing/staar/staar-resources).

# ENDORSEMENT CHOICES

Career and technical education programs offer a sequence of courses that provide students with coherent and rigorous content. CTE content is aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions.

## BUSINESS & INDUSTRY

Includes highly varied occupations in both service and manufacturing industries. These endorsements range from industrial and technical trades, business, marketing & finance, graphic design occupations, to information technology.

### Programs of Study Include:

- Accounting & Financial Services (P.6)
- Animal Science (P.7)
- Agricultural Technology & Mechanical Systems (P.8)
- Architectural Drafting & Design (P.9)
- Audio/Video Production (P.10)
- Aviation Maintenance (P.11)
- Aviation Pilots (P.12)
- Business Management (P.13)
- Computer Science (P.14)
- Construction Technology (P.15)
- Culinary Arts (P.16)
- Cybersecurity (P.17)
- Electrical Technology (P.19)
- Engineering Foundations (P.21)
- Game & App Development (P.22)
- Graphic Design & Interactive Media (P.23)
- Marketing & Sales (P.26)
- Plant & Floral Science (P.29)
- Robotics (P.30)
- Welding (P.32)

## PUBLIC SERVICES

Includes service-oriented occupations for both private and public sector industries, including human service and healthcare fields.

### Programs of Study Include:

- Dentistry (P.18)
- Emergency Medicine (P.20)
- Law Enforcement (P.24)
- Legal Studies (P.25)
- Nursing (P.27)
- Pharmacy (P.28)
- Teaching & Training (P.31)

# Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

## Accounting and Financial Services Statewide Program of Study



The Accounting and Financial Services program of study teaches CTE learners how to examine, analyze, and interpret financial records. Through this program of study, students will learn the skills necessary to perform financial services, prepare financial statements, interpret accounting records, give advice, or audit and evaluate statements prepared by others. This program of study will also introduce students to mathematical modeling tools.

### Secondary Courses for High School Credit

#### Level 1

- Business Information Management I+ (1)
- Money Matters (1)

#### Level 2

- Accounting I (1)

#### Level 3

- Accounting II\* (1)

#### Level 4

- Practicum in Accounting\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Intuit QuickBooks Certified User



#### Business Information Management I+ (1)

In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

#### Money Matters (1)

In Money Matters, students will investigate money management from a personal financial perspective. Students will apply critical thinking skills to analyze financial options based on current and projected economic factors. Students will gain knowledge and skills necessary to establish short term and long-term financial goals. Students will examine various methods of achieving short term and long-term financial goals through various methods such as investing, tax planning, asset allocating, risk management, retirement planning, and estate planning.

#### Accounting I (1)

In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making. Accounting includes such activities as bookkeeping, systems design, analysis, and interpretation of accounting information.

#### Accounting II\* (1)

In Accounting II, students will continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real world situations to maintain, monitor, control, and plan the use of financial resources. Note: This course may satisfy a math credit requirement for students on the Foundation High School Program.

#### Practicum in Accounting\* (2)

Practicum in Accounting is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs.

Occupations	Median Wage	Annual Openings	% Growth
Accountants and Auditors	\$71,469	14,436	22%
Loan Officers	\$68,598	2,419	19%
Personal Financial Advisors	\$86,965	1,861	52%
Administrative service Managers	\$96,138	2,277	21%
Insurance Underwriters	\$66,206	594	14%

Successful completion of the Accounting and Financial Services program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# 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 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.

## Animal Science Statewide Program of Study



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.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources (1)

#### Level 2

- Small Animal Management (.5)
- Equine Science (.5)

#### Level 3

- Livestock Production (1)
- Advanced Animal Science\* (1)
- Veterinary Medical Applications\* (1)

#### Level 4

- Practicum in Animal Science\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certification:

- Equine Management & Evaluation Certification
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Certified Veterinary Assistant, Level 1



### Principles of Agriculture, Food, and Natural Resources (1)

Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

### Small Animal Management (.5)

In Small Animal Management, students will acquire knowledge and skills related to small animals and the small animal management industry. Small Animal Management may address topics related to small mammals such as dogs and cats, amphibians, reptiles, and birds.

### Equine Science (.5)

In Equine Science, students will acquire knowledge and skills related to equine animal systems and the equine industry. Equine Science may address topics related to horses, donkeys, and mules.

### Livestock Production (1)

In Livestock Production, students will acquire knowledge and skills related to livestock and the livestock production industry. Livestock Production may address topics related to beef cattle, dairy cattle, swine, sheep, goats, and poultry.

### Advanced Animal Science\* (1)

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

### Veterinary Medical Applications\* (1)

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species.

### Practicum in Animal Science\* (2)

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 Career Cluster.

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	\$39,139	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%

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 – August 2022



# 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 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.

## Agricultural Technology and Mechanical Systems Statewide Program of Study



The Agricultural Technology and Mechanical Systems program of study explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources (1)

#### Level 2

- Agricultural Mechanics and Metal Technologies+ (1) AND Optional Lab (1)

#### Level 3

- Agricultural Structures, Design and Fabrication+ (1) AND Optional Lab (1)

#### Level 4

- Agricultural Equipment Design and Fabrication+ (1)
- Practicum in Agricultural Technology & Mechanical Systems\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding



### Principles of Agriculture, Food, & Natural Resources (1)

Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

### Agricultural Mechanics & Metal Technologies+ (1)

Agricultural Mechanics and Metal Technologies is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metalworking techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

### Agricultural Structures, Design & Fabrication+ (1)

In Agricultural Structures Design and Fabrication, students will explore career opportunities, entry requirements, and industry expectations. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural structures design and fabrication.

### Agricultural Equipment Design and Fabrication+ (1)

In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment.

### Practicum in Agriculture Technology & Mechanical Systems\* (2)

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 Career Cluster.

Occupations	Median Wage	Annual Openings	% Growth
Outdoor Power Equipment and Other Small Engine Mechanics	\$32,406	366	16%
Welders	\$41,350	6171	9%
Farm Equipment Mechanics and Service Technicians	\$39,915	304	17%
Mobile Heavy Equipment Mechanics	\$47,299	1627	16%
Agricultural Engineers	\$64,792	9	13%

Successful completion of the Agricultural Technology and Mechanical Systems program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022





# Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

## Architectural Drafting & Design Statewide Program of Study



The Architectural Drafting & Design program of study explores the occupations and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study may also include exploration into collecting and interpreting geographic information, researching and preparing maps, and interior design.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Architecture (1)

#### Level 2

- Architectural Design I+\* (1)

#### Level 3

- Architectural Design II+\* (2)

#### Level 4

- Practicum in Architectural Design\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Revit Architecture



#### Principles of Architecture (1)

Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision-making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

#### Architectural Design I+\* (1)

In Architectural Design I, students will gain knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design I include the knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

#### Architectural Design II+\* (2)

In Architectural Design II, students will gain advanced knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design II includes the advanced knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

#### Practicum in Architectural Drafting & Design\* (2)

Practicum in Architectural Design is an occupationally specific course designed to provide technical instruction in architectural design. Safety and career opportunities are included in addition to work ethics and architectural design study.

Occupations	Median Wage	Annual Openings	% Growth
Architects	\$77,043	808	16%
Geographic Information Analysts and Surveyors	\$58,926	162	27%
Architectural/ Civil Drafters	\$50,170	1,068	9%
Construction Managers	\$87,402	2,401	14%

Successful completion of the Architectural Drafting & Design program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Arts, Audio/Video Technology, and Communications Career Cluster

The Arts, A/V Technology and Communications (AAVTC) Career Cluster focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC career cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

## Audio/Video Production Statewide Program of Study



The Audio/Video Production program of study explores the occupations and educational opportunities associated with the production of audio and visual media formats for various purposes, such as TV broadcasts, advertising, video production, or motion pictures. This program of study may also include exploration into operating machines and equipment to record sound and images, such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Arts, Audio/Video Technology, and Communications (1)

#### Level 2

- Audio/Video Production I+ (1)

#### Level 3

- Audio/Video Production II\* (1)

#### Level 4

- Practicum in Audio/Video Production\* (2)

\*Required Prerequisite

+Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro



### Principles of Arts, A/V Technology, & Communications (1)

In Principles of Arts, A/V Tech, & Communications students will focus on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

### Audio/Video Production I+ (1)

In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products.

### Audio/Video Production II\* (1)

Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post-production products. Through diverse forms of storytelling and production, students will exercise and develop creativity, intellectual curiosity, and critical-thinking, problem-solving, and collaborative skills. This course may be implemented in an audio format or a format with both audio and video. Requiring a lab requisite for the course affords necessary time devoted specifically to the production and post-production process.

### Practicum in Audio/Video Production\* (2)

Building upon the concepts taught in Audio/Video Production II, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Occupations	Median Wage	Annual Openings	% Growth
Sound Engineering Technicians	\$39,562	79	27%
Camera Operators, Television, Video, and Motion Picture	\$50,024	129	9%
Audio and Video Equipment Technicians	\$40,581	757	29%
Film and Video Editors	\$47,382	118	23%

Successful completion of the Audio/Video Production program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

## Aviation Maintenance Statewide Program of Study



The Aviation Maintenance program of study introduces students to the occupations and education opportunities related to inspecting aircraft, maintenance procedures, air navigational aids, air traffic controls, and communications equipment to ensure conformance with federal safety regulations.

### Secondary Courses for High School Credit

#### Level 1

- Introduction to Aircraft Technology (1)

#### Level 2

- Aviation Maintenance (1)

-----  
**Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.**

#### Level 3

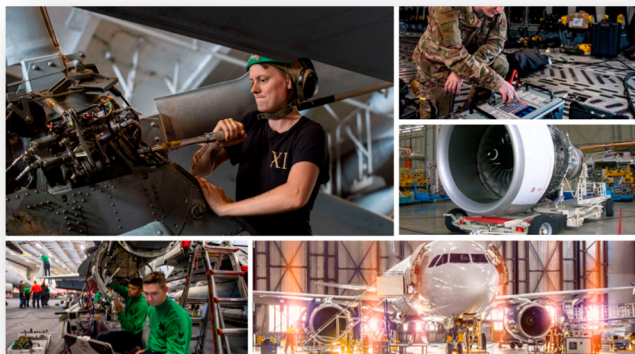
- Aircraft Airframe Technology/Lab\* (2)

#### Level 4

- Practicum in Aviation Maintenance\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**



### Introduction to Aircraft Technology (1)

Introduction to Aircraft Technology is designed to teach the theory of operation of aircraft airframes, powerplants, and associated maintenance and repair practices. Maintenance and repair practices include knowledge of the function, diagnosis, and service, airframe structures, airframe systems and components, powerplant theory and maintenance, and powerplant systems and components of aircraft.

### Aircraft Maintenance (1)

Students will practice safe working habits and learn the components of a reciprocating engine; aircraft control systems, and avionics systems. The course will include aircraft service requirements, ground operation procedures, and calculating the cost associated with aircraft preventative maintenance.

### Aircraft Airframe Technology/ Lab\* (2)

Aircraft Airframe Technology is designed to teach the theory of operation of aircraft airframes and associated maintenance and repair practices. Airframe maintenance and repair practices include knowledge of the function, diagnosis, and service of airframe structures, systems, and components of aircraft. Prerequisite: Introduction to Aircraft Technology

### Practicum in Aviation Maintenance\* (2)

Practicum in Aviation Maintenance is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or worked based.

Occupations	Median Wage	Annual Openings	% Growth
Aircraft Mechanics and Technicians	\$58,698	1,469	9%
Avionics Technicians	\$59,114	170	9%

Successful completion of the Aviation Maintenance program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

## Aviation Pilots Statewide Program of Study



The Aviation Pilots statewide program of study introduces CTE learners to the occupations and education opportunities related to understanding the principles and science of flight, aviation engineering, air navigational aids, air traffic controls, and communications equipment to ensure conformance with federal safety regulations.

### Secondary Courses for High School Credit

#### Level 1

- Introduction to Aerospace and Aviation (1)

#### Level 2

- Introduction to Unmanned Aerial Vehicle Flight (1)

-----  
**Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.**

#### Level 3

- Aviation Ground School (1)
- Aviation Scientific Research and Design\* (1)

#### Level 4

- Practicum in Aviation Pilots\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- FAA Part 107 Remote Drone Pilot



### Introduction to Aerospace and Aviation (1)

The Introduction to Aerospace and Aviation course will provide the foundation for advanced exploration in the areas of professional pilot, aerospace engineering, and unmanned aircraft systems. Students will learn about the history of aviation, from Leonardo da Vinci's ideas about flight to the Wright brothers and the space race. Along the way students will learn about the innovations and technological developments that have made today's aviation and aerospace industries possible. The course includes engineering practices, the design process, aircraft structure, space vehicles past and present, and a look toward future space exploration.

### Introduction to Unmanned Aerial Vehicle Flight (1)

The Introduction to Unmanned Aerial Vehicle (UAV) Flight course is designed to prepare students for entry-level employment or continuing education in piloting UAV operations. Principles of UAV is designed to instruct students in UAV flight navigation, industry laws and regulations, and safety regulations. Students are also exposed to mission planning procedures, environmental factors, and human factors involved in the UAV industry.

### Aviation Ground School (1)

This course is designed to extend student interests in all aspects of aviation while preparing students to take the formal ground requisite exam for the Federal Aviation Administration (FAA) FAA Airman Knowledge Test which is required to obtain a private pilot's license. The rigor of the course challenges students with complex aeronautical, engineering, weather, management and judgement concepts. Rules, regulations, obligations, and commitments to discipline and focus are foundational throughout the course. The ability to grasp flight without actually flying a real aircraft extends well beyond the classroom as students learn navigation, weather science, attention to detail (mathematical fuel and load planning), health and mental well-being related to flight planning and piloting aircraft.

### Aviation Scientific Research and Design\* (1)

The course has the components of any rigorous scientific or engineering program of study with a focus on aviation including the identification of a problem, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. All of these components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education.

### Practicum in Aviation Pilots\* (2)

Practicum in Aviation is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or worked based.

Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineering and Operations Technicians	\$60,757	114	9%
Airline Pilots, Copilots, and Flight Engineers	\$165,130	1,150	9%
Commercial Pilots	\$86,310	548	9%

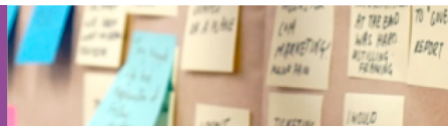
Successful completion of the Aviation Pilots statewide program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

## Business Management Statewide Program of Study



The Business Management program of study teaches CTE learners how to plan, direct, and coordinate the administrative services and operations of an organization. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, and allocate the use of materials and human resources. This program of study will also introduce students to mathematical modeling tools and organizational evaluation methods.

### Secondary Courses for High School Credit

#### Level 1

- Business Information Management I+ (1)
- Principles of Business, Marketing, and Finance (1)
- Business Information Management II\* (1) (if prereq. met)

#### Level 2

- Business Information Management II\* (1)
- Business Management\* (1)
- BUSI 1301 (3) AND/OR BMGT 1327\* (3)  
\* Available for Highschool or College credit

#### Level 3

- Business Law (1)
- Business Management\* (1)
- BUSI 1301 (3) AND/OR BMGT 1327\* (3)  
\* Available for Highschool or College credit

#### Level 4

- Statistics and Business Decision Making\* (1)
- Practicum in Business Management\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Entrepreneurship and Small Business
- Microsoft Office Specialist: Microsoft Word Expert (Word and Word 2019)
- Microsoft Office Specialist: Microsoft Excel Expert (Excel and Excel 2019)



#### Business Information Management 1+ (1)

In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

#### Principles of Business, Marketing, & Finance (1)

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

#### Business Information Management II\* (1)

In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

#### Business Management\* (1)

Business Management is designed to familiarize students with the concepts related to business management as well as the functions of management, including planning, organizing, staffing, leading, and controlling. Students will also demonstrate interpersonal and project-management skills.

#### Business Law (1)

Business Law is designed for students to analyze various aspects of the legal environment, including ethics, the judicial system, contracts, personal property, sales, negotiable instruments, agency and employment, business organization, risk management, and real property.

#### Statistics & Business Decision Making\* (1)

Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid. Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

#### Practicum in Business Management\* (2)

Practicum in Business Management is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs.

Occupations	Median Wage	Annual Openings	% Growth
Administrative Service Managers	\$96,138	2,277	21%
Management Analysts	\$87,651	4,706	32%
General and Operations Managers	\$107,640	18,679	20%
Supervisors of Administrative Support Works	\$57,616	14,982	20%

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

## Computer Science Statewide Program of Study



The Computer Science program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run.

### Secondary Courses for High School Credit

#### Level 1

- Fundamentals of Computer Science (1)
- TAP Computer Science I\* (1)

#### Level 2

- TAP Computer Science I\* (1)
- AP Computer Science A, MATH & LOTE+ (2)

#### Level 3

- AP Computer Science A, MATH & LOTE+ (2)
- TAP Computer Science II\* (1)

#### Level 4

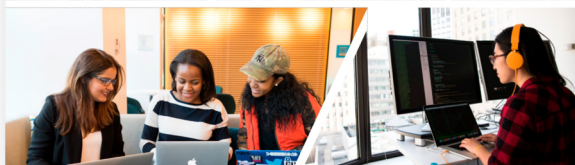
- TAP Computer Science II\* (1)
- TAP Computer Science III\* (1)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Information Technology Specialist: Java
- Oracle Certified Associate Java SE 8 Programmer



#### Fundamentals of Computer Science (1)

Fundamentals of Computer Science is intended as a first course for those students just beginning the study of computer science. Students will learn about the computing tools that are used every day. Students will foster their creativity and innovation through opportunities to design, implement, and present solutions to real-world problems. Students will collaborate and use computer science concepts to access, analyze, and evaluate information needed to solve problems. Students will learn the problem solving and reasoning skills that are the foundation of computer science. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations and concepts. The six strands include: creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem solving and decision making, digital citizenship, and technology operations and concepts.

#### TAP Computer Science I\* (1)

Computer Science I will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations, systems, and concepts. Note: This course satisfies the state graduation requirement for a level one course under Languages other than English.

#### AP Computer Science A+ (2 credits, 1 period)

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

#### TAP Computer Science II\* (1)

In Computer Science II, students will develop and generate new understandings by extending existing knowledge. Students will collaborate with peers and will use software engineering to work in software design teams. Students will locate, analyze, process, and organize data while using critical thinking, problem solving, and decision making. Students will explore and understand safety, legal, cultural, and societal issues relating to the use of technology and information. Note: This course satisfies the state graduation requirement for a level two course under Languages other than English.

#### TAP Computer Science III\* (1)

In the Practicum in Computer Science, students will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an industry mentor, as an unpaid or paid internship, as part of a capstone project, or as career preparation.

Occupations	Median Wage	Annual Openings	% Growth
Software Developer, Systems Software	\$103,334	2,985	25%
Software Developers, Application	\$104,499	6,311	30%
Computer Programmers	\$79,893	1,454	9%

Successful completion of the Computer Science program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022



# Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

## Construction Technology Statewide Program of Study



The Construction Technology program of study explores the occupations and educational opportunities related to constructing, installing, or repairing structures and fixtures made of wood, such as concrete forms (including frameworks, partitions, joists, studding, rafters, and stairways). This program of study may also include exploration into installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Architecture (1)

#### Level 2

- Construction Technology I+ (2)

#### Level 3

- Construction Technology II\* (2)

#### Level 4

- Practicum in Construction Technology\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- NCCER Carpentry Level I



#### Principles of Architecture (1)

Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision-making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

#### Construction Technology I+ (2)

In Construction Technology I, students will gain knowledge and skills needed to enter the workforce as carpenters or building maintenance supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, tool usage, building materials, codes, and framing.

#### Construction Technology II\* (2)

In Construction Technology II, students will gain advanced knowledge and skills needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will build on the knowledge base from Construction Technology I and are introduced to exterior and interior finish out skills.

#### Practicum in Construction Technology\* (2)

In Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

Occupations	Median Wage	Annual Openings	% Growth
Construction and Building Inspectors	\$53,914	983	17%
Cost Estimators	\$63,939	2,239	21%
Construction Managers	\$87,402	2,401	14%

Successful completion of the Construction Technology program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# Hospitality and Tourism Career Cluster

The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services. Students acquire knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success.

## Culinary Arts Statewide Program of Study



The Culinary Arts program of study introduces CTE learners to occupations and educational opportunities related to the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study also explores opportunities involved in directing and participating in the preparation and cooking of food.

### Secondary Courses for High School Credit

#### Level 1

- Introduction to Culinary Arts+ (1)

#### Level 2

- Culinary Arts+ (2)

#### Level 3

- Advanced Culinary Arts\* (2)

#### Level 4

- Food Science +\* (1)
- Practicum in Culinary Arts\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- ServSafe Food Manager



#### Introduction to Culinary Arts+ (1)

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

#### Culinary Arts+ (2)

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.

#### Advanced Culinary Arts\*(2)

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment.

#### Food Science+\* (1)

In Food Science students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration in food products, the principles underlying food processing, and the improvement of foods for the consuming public. Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

#### Practicum in Culinary Arts\* (2)

Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace.

Occupations	Median Wage	Annual Openings	% Growth
Food and Beverage Managers	\$55,619	1,561	28%
Chef and Head Cooks	\$43,285	1,366	25%
Food Science Technicians	\$34,382	236	11%

Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022





# Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

## Cybersecurity Statewide Program of Study



The Cybersecurity program of study includes the occupations and educational opportunities related to planning, implementing, upgrading, or monitoring security measure for the protection of computer networks and information. This program of study may also include exploration into responding to computer security breaches and virus and administering network security measures.

### Secondary Courses for High School Credit

#### Level 1

- Computer Science Essentials (1)

#### Level 2

- Foundations of Cybersecurity (1)

Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.

#### Level 3

- AP Computer Science Principles+ (1)
- AP Computer Science A-MATH & LOTE+ (1)

#### Level 4

- Practicum in Cybersecurity+\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- CompTIA Security+



### Computer Science Essentials (1)

Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Visual, block-based programming will enable students to seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, as well as learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

### Foundations of Cybersecurity (1)

In the Foundations of Cybersecurity course, students will develop the knowledge and skills needed to explore fundamental concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyberattacks, threats, and vulnerabilities. Students will review and explore security policies designed to mitigate risks. The skills obtained in this course prepare students for additional study in cybersecurity. A variety of courses are available to students interested in this field. Foundations of Cybersecurity may serve as an introductory course in this field of study.

### AP Computer Science Principles+ (1)

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

### AP Computer Science A+ (Math and LOTE) (1)

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

### Practicum in Cybersecurity+\* (2)

In the Cybersecurity Capstone course, students will develop the knowledge and skills needed to explore advanced concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyberattacks, threats, and vulnerabilities. Students will develop security policies to mitigate risks. The skills obtained in this course prepare students for additional study toward industry certification. A variety of courses are available to students interested in the cybersecurity field. Cybersecurity Capstone may serve as a culminating course in this field of study.

Occupations	Median Wage	Annual Openings	% Growth
Information Security Analysts	\$91,915	814	29%
Network and Computer System Administrators	\$82,597	2,814	19%
Computer System Analysts	\$87,568	5,937	29%

Successful completion of the Cybersecurity program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022



# 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. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

## Dentistry Statewide Program of Study



The Dentistry program of study introduces students to occupations and education opportunities related to performing complex medical laboratory tests for the diagnosis, treatment, and prevention of disease. This program of study may also include exploration into the opportunities associated with blood laboratories as well as radiologic technology and ultrasound technology.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Health Science (1)

#### Level 2

- Medical Terminology (1)

#### Level 3

- Health Science Theory\* (1)
- Health Science Clinicals & Theory\* (2)

#### Level 4

- Anatomy and Physiology+\* (1)
- Practicum in Dentistry\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Certified EKG Technician
- Registered Dental Assistant X-Ray Certification



#### Principles of Health Science (1)

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the healthcare industry.

#### Medical Terminology (1)

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

#### Health Science Theory\* (1)

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

#### Health Science Clinicals & Theory\* (2)

The Health Science Clinical course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses.

#### Anatomy & Physiology+\* (1)

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

#### Practicum in Dentistry\* (2)

The Practicum in Dentistry course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Occupations	Median Wage	Annual Openings	% Growth
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$45,032	1,150	20%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%

Successful completion of the Dentistry program of study will fulfill requirements of the Public Service or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

## Electrical Technology Lone Star College Creekside Center



The Electrical Technology program of study explores the occupations and educational opportunities associated with installing, maintaining, and repairing electrical wiring, equipment, and fixtures. This program of study may also include exploration into installing and repairing telecommunications cable including fiber optics.

### Secondary Courses for High School Credit

#### Level 4

- AC/DC Electronics+ (1)
- Electrical Technology I+ (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Postsecondary Opportunities

#### Associates Degrees

- Electrician
- Communications Systems Installation and Repair Technology

#### Bachelor's Degrees

- Construction Science

#### Master's, Doctoral, and Professional Degrees

- Construction Management



### AC/DC Electronics+ (1)

AC/DC Electronics focuses on the basic electricity principles of alternating current/direct current (AC/DC) circuits. Students will demonstrate knowledge and applications of circuits, electronic measurement, and electronic implementation. Through use of the design process, students will transfer academic skills to component designs in a project-based environment. Students will use a variety of computer hardware and software applications to complete assignments and projects. Additionally, students will explore career opportunities, employer expectations, and educational needs in the electronics industry.

### Electrical Technology I+ (2)

In Electrical Technology I, students will gain knowledge and skills needed to enter the workforce as an electrician or building maintenance supervisor, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, and the reading of electrical drawings, schematics, and specifications.

Occupations	Median Wage	Annual Openings	% Growth
Electrical Linemen	\$54,184	1,314	28%
Electricians	\$44,013	8,460	21%
Electrical and Electronics Installers	\$37,544	245	19%
Security and Fire Alarm Installers	\$43,638	1,112	22%
Telecommunication Line Installers and Repairers	\$49,150	1,228	10%

Successful completion of the Electrical Technology program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022



# 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. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

## Emergency Medicine (EMT) Statewide Program of Study



The Emergency Medicine program of study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study also includes an introduction to the opportunities associated with providing treatment and counsel to patients as well as 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 (1)

#### Level 2

- Medical Terminology (1)

#### Level 3

- Health Science Theory\* (1)
- Health Science Clinicals & Theory\* (2)

#### Level 4

- Anatomy and Physiology+\* (1)
- Practicum in Emergency Medicine\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Certified EKG Technician
- Emergency Medical Technician - Basic



### Principles of Health Science (1)

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the healthcare industry.

### Medical Terminology (1)

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

### Health Science Theory\* (1)

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

### Health Science Clinicals & Theory\* (2)

The Health Science Clinical course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses.

### Anatomy & Physiology+\* (1)

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

### Practicum in Emergency Medicine\* (2)

The Practicum in Emergency Medicine course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Occupations	Median Wage	Annual Openings	% Growth
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$45,032	1,150	20%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%

Successful completion of the Emergency Medicine program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Engineering Career Cluster

The Engineering Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

## Engineering Foundations Statewide Program of Study



The Engineering Foundations program of study focuses on the design, development, and use of engines, machines, and structures. CTE learners will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.

### Secondary Courses for High School Credit

#### Level 1

- Introduction to Engineering Design (1)

#### Level 2

- Engineering Science +\* (1)

#### Level 3

- Aerospace Engineering (1)
- Digital Electronics\* (1)

#### Level 4

- Engineering and Design and Development+\* (1)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Autodesk Associate (Certified User) Fusion 360



#### Introduction to Engineering Design (1)

Introduction to Engineering Design (IED) is a high school level course that is appropriate for students who are interested in design and engineering. The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity, project, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning.

#### Engineering Science+\* (1)

Engineering Science is an engineering course designed to expose students to some of the major concepts and technologies that they will encounter in a postsecondary program of study in any engineering domain. Students will have an opportunity to investigate engineering and high-tech careers. In Engineering Science, students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenge situations. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

#### Aerospace Engineering (1)

This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles.

#### Digital Electronics\* (1)

Digital Electronics is the study of electronic circuits that are used to process and control digital signals. In contrast to analog electronics, where information is represented by a continuously varying voltage, digital signals are represented by two discrete voltages or logic levels. This distinction allows for greater signal speed and storage capabilities and has revolutionized the world of electronics. Digital electronics is the foundation of modern electronic devices such as cellular phones, digital audio players, laptop computers, digital cameras, and high-definition televisions. The primary focus of Digital Electronics is to expose students to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

#### Engineering Design & Development+\* (1)

Engineering Design and Development is the capstone course in the high school engineering program. It is an open-ended engineering research course in which students design and develop an original solution to a well-defined and justified open-ended problem by applying an engineering design process. Students perform research to select, define, and justify a problem. After carefully defining the design requirements and creating multiple solutions, students select an approach, create, and test the solution prototype. Students present and defend their solution to an outside panel. While progressing through the engineering design process, students work closely with experts and continually hone their organizational, communication and interpersonal skills, and their creative and problem-solving abilities. Engineering Design and Development is appropriate for 11th and 12th grade students and should be taken as the capstone course since it requires application of the knowledge and skills learned in the foundation courses.

Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,107	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	105

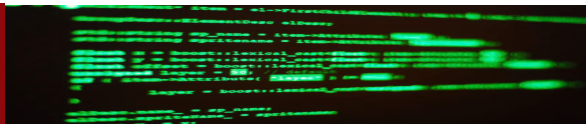
Successful completion of the Engineering Foundations program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

## Game and App Development Statewide Program of Study



The Game and App Development program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run.

### Secondary Courses for High School Credit

#### Level 1

- TAP Computer Science I\* (1)
- Fundamentals of Computer Science (1)

#### Level 2

- AP Computer Science A, MATH & LOTE+ (2)
- TAP Computer Science I\* (1)

#### Level 3

- TAP Game Programming and Design\* (1)
- AP Computer Science A, MATH & LOTE+ (2)

#### Level 4

- TAP Mobile Application Development\* (1)
- TAP Game Programming and Design\* (1)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Certified Professional Programmer – Unity
- Information Technology Specialist: Java



Occupations	Median Wage	Annual Openings	% Growth
Software Developer, Systems Software	\$103,334	2,985	25%
Software Developers, Application	\$104,499	6,311	30%
Computer Programmers	\$79,893	1,454	9%

Successful completion of the Game and App Development program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022



#### TAP Computer Science I\* (1)

Computer Science I will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations, systems, and concepts. Note: This course satisfies the state graduation requirement for a level one course under Languages other than English.

#### Fundamentals of Computer Science (1)

Fundamentals of Computer Science is intended as a first course for those students just beginning the study of computer science. Students will learn about the computing tools that are used every day. Students will foster their creativity and innovation through opportunities to design, implement, and present solutions to real-world problems. Students will collaborate and use computer science concepts to access, analyze, and evaluate information needed to solve problems. Students will learn the problem solving and reasoning skills that are the foundation of computer science. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations and concepts. The six strands include: creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem solving and decision making, digital citizenship, and technology operations and concepts.

#### AP Computer Science A+ (2 credits, 1 period)

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

#### TAP Game Programming and Design\* (1)

Game Programming and Design will foster student creativity and innovation by presenting students with opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve gaming problems. Through data analysis, students will include the identification of task requirements, plan search strategies, and use programming concepts to access, analyze, and evaluate information needed to design games. By acquiring programming knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will create a computer game that is presented to an evaluation panel. The six strands include: creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem solving and decision making, digital citizenship, and technology operations and concepts.

#### TAP Mobile App Development\* (1)

Prerequisite: At least one credit from the Mobile App Development Program of Study. Mobile Application Development will foster students' creativity and innovation by presenting opportunities to design, implement, and deliver meaningful projects using mobile computing devices. Students will collaborate with one another, their instructor, and various electronic communities to solve problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use software development concepts to access, analyze, and evaluate information needed to program mobile devices. By using software design knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of mobile application development through the study of development platforms, programming languages, and software design standards.

# Arts, Audio/Video Technology, and Communications Career Cluster

The Arts, A/V Technology and Communications (AAVTC) Career Cluster focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC career cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

## Graphic Design and Interactive Media Statewide Program of Study



The Graphic Design and Interactive Media program of study explores the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. This program of study may also include exploration into designing clothing and accessories, and creating special effects, animation, or other visual images using film, video, computers, or other electronic tools and media, for use in computer games, movies, music videos, and commercials.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Arts, A/V Technology, and Communications (1)

#### Level 2

- Graphic Design I+ (1)

Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.

#### Level 3

- Graphic Design II with Lab\* (2)

#### Level 4

- Practicum in Graphic Design\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator
- Adobe Certified Professional in Visual Design Using Adobe Photoshop



### Principles of Arts, A/V Technology, & Communications (1)

In Principles of Arts, A/V Tech, & Communications students will focus on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

### Graphic Design I+ (1)

Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

### Graphic Design II with Lab\* (2)

Within this context, students will be expected to develop an advanced understanding of the industry with a focus on mastery of content knowledge and skills.

### Practicum in Graphic Design\* (2)

In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation.

Occupations	Median Wage	Annual Openings	% Growth
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

Successful completion of the Graphic Design and Interactive Media program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# Law and Public Service Career Cluster

The Law and Public Service Career Cluster focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and fire and emergency services.

## Law Enforcement Statewide Program of Study



The Law Enforcement program of study teaches CTE learners about the development of, adherence to, and protection of various branches of law. Students will learn how to appropriately and legally respond to breaches in the law according to statutory rules and regulations as well as investigate how and why the breaches occurred.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Law (1)

#### Level 2

- Law Enforcement I+ (1)

Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.

#### Level 3

- Law Enforcement II+ (1)
- Criminal Investigation+ (1)

#### Level 4

- Practicum in Law Enforcement\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- IAED Emergency Telecommunicator



#### Principles of Law (1)

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.

#### Law Enforcement I+ (1)

Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.

#### Law Enforcement II+ (1)

Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. Students will understand ethical and legal responsibilities, patrol procedures, first responder roles, telecommunications, emergency equipment operations, and courtroom testimony.

#### Criminal Investigation+ (1)

Criminal Investigation is a course that introduces students to the profession of criminal investigations. Students will understand basic functions of criminal investigations and procedures and will learn how to investigate or follow up during investigations. Students will learn terminology and investigative procedures related to criminal investigation, crime scene processing, evidence collection, fingerprinting, and courtroom presentation. Through case studies and simulated crime scenes, students will collect and analyze evidence such as fingerprint analysis, bodily fluids, hairs, fibers, shoe and tire impressions, bite marks, drugs, tool marks, firearms and ammunition, blood spatter, digital evidence, and other types of evidence.

#### Practicum in Law Enforcement\* (2)

The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Occupations	Median Wage	Annual Openings	% Growth
Police and Sheriff's Patrol Officers	\$60,112	5,241	13%
Probation Officers and Correctional Treatment Officers	\$44,054	793	9%
Correctional Officers and Jailers	\$40,186	4,683	9%
Immigration and Customs Inspectors	\$78,104	1,236	9%
First-Line Supervisors of Police and Detectives	\$91,312	253	25%

Successful completion of the Law Enforcement program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022





# Law and Public Service Career Cluster

The Law and Public Service Career Cluster focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and fire and emergency services.

## Legal Studies Statewide Program of Study



The Legal Studies program of study introduces CTE learners to the occupations and educational opportunities related to representing clients in criminal and civil litigation and other legal proceedings, as well as assisting lawyers and preparing legal documents. This program of study explores possible specializations in a single area of law.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Law (1)

#### Level 2

- Court Systems and Practices+ (1)

Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.

#### Level 3

- Advanced Legal Skills and Professions+ (1)
- Legal Research and Writing+ (1)

#### Level 4

- Practicum in Legal Studies\* (2)

\*Required Prerequisite +Recommended Prerequisite

*Specific course offerings and availability are subject to change due to interest and enrollment.*

### Postsecondary Opportunities

#### Associates Degrees

- Legal Assistant/Paralegal

#### Bachelor's Degrees

- Legal Assistant/Paralegal

#### Master's, Doctoral, and Professional Degrees

- Law
- Intellectual Property Law
- Advanced Legal Research/Studies General
- International Law and Legal Studies



#### Principles of Law (1)

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.

#### Court Systems and Practices+ (1)

Court Systems and Practices is an overview of the federal and state court systems. The course identifies the roles of judicial officers and the trial processes from pretrial to sentencing and examines the types and rules of evidence. Emphasis is placed on constitutional laws for criminal procedures such as search and seizure, stop and frisk, and interrogation.

#### Advanced Legal Skills and Professions+ (1)

Advanced Legal Skills and Professions+ provides students with a foundation to understand the basic mechanics of the U.S. legal system. Building on prior instruction in constitutional issues and the basics of American court systems, this course provides insight into the practical application of the law, as well as civil and criminal procedure, giving students a hands-on opportunity to experience a variety of legal professions.

#### Legal Research and Writing+ (1)

Legal Research and Writing provides an introduction into the study and practice of legal writing and research. This course is designed to introduce students to the methods and tools used to conduct legal research, develop and frame legal arguments, produce legal writings such as briefs, memorandums, and other legal documents.

#### Practicum in Legal Studies\* (2)

The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Occupations	Median Wage	Annual Openings	% Growth
Lawyers	\$126,131	2,801	19%
Paralegal and Legal Assistants	\$50,544	2,837	19%

Successful completion of the Legal Studies program of study will fulfill requirements of the Public Service endorsement.  
Revised – August 2022



# Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

## Marketing and Sales Statewide Program of Study



The Marketing and Sales program of study teaches CTE learners how to collect information to determine potential sales of a product or service and/or create a marketing campaign to market or distribute goods and services. Through this program of study, students will learn the skills necessary to understand and apply data on customer demographics, preferences, needs, and buying habits.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Business, Marketing, and Finance (1)

#### Level 2

- Fashion Marketing+ (.5)
- Sports and Entertainment Marketing+ (.5)

#### Level 3

- Social Media Marketing+ (.5)
- Advertising+ (.5)
- Marketing I+ (1)

#### Level 4

- Practicum in Marketing\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Stukent Social Media Marketing Certification



Occupations	Median Wage	Annual Openings	% Growth
Marketing Research Analysts and Marketing Specialists	\$70,346	4,664	40%
Insurance Sales Agent	\$43,181	5,886	30%
First-Line Supervisors of Retail Sales Workers	\$72,550	2,826	15%
Wholesale and Retail Buyers	\$51,106	1,229	19%

#### Principles of Business, Marketing and Finance (1)

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

#### Fashion Marketing+ (.5)

Fashion Marketing is designed to provide students with knowledge of the various business functions in the fashion industry. Students in Fashion Marketing will gain a working knowledge of promotion, textiles, merchandising, mathematics, selling, visual merchandising, and career opportunities.

#### Sports & Entertainment Marketing I+ (.5)

Sports and Entertainment Marketing will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and entertainment. The areas this course will cover include basic marketing concepts, publicity, sponsorship, endorsements, licensing, branding, event marketing, promotions, and sports and entertainment marketing strategies.

#### Social Media Marketing+ (.5)

Social Media Marketing is designed to look at the rise of social media and how marketers are integrating social media tools in their overall marketing strategy. The course will investigate how the marketing community measures success in the new world of social media. Students will manage a successful social media presence for an organization, understand techniques for gaining customer and consumer buy-in to achieve marketing goals, and properly select social media platforms to engage consumers and monitor and measure the results of these efforts.

#### Advertising+ (.5)

Advertising is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media. The course explores the social, cultural, ethical, and legal issues of advertising, historical influences, strategies, media decision processes as well as integrated marketing communications, and careers in advertising and sales promotion. The course provides an overview of how communication tools can be used to reach target audiences and increase consumer knowledge.

#### Marketing I+ (1)

Marketing explores the seven core functions of marketing which include: marketing planning – why target market and industry affect businesses; marketing-information management – why market research is important; pricing – how prices maximize profit and affect the perceived value; product/service management – why products live and die; promotion – how to inform customers about products; channel management – how products reach the final user; and selling – how to convince a customer that a product is the best choice. Students will demonstrate knowledge in hands-on projects which may include conducting research, creating a promotional plan, pitching a sales presentation, and introducing an idea for a new product/service.

#### Practicum in Marketing\* (2)

Practicum in Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students will gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling skills. Students will integrate skills from academic subjects, information technology, interpersonal communications, and management training to make responsible decisions. Then practicum course is a paid or unpaid experience for students participating in a coherent sequence of career and technical courses in marketing.

Successful completion of the Marketing and Sales program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022



# 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. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

## Nursing Statewide Program of Study



The Nursing Science program of study introduces students to the knowledge and skills related to patient care. CTE learners may learn about or practice caring for patients, routine procedures such as monitoring vital signs, development and implementation of care plans, maintenance of medical records, and disease or pain management. Students may focus on the healthcare system and research system designs and make recommended modifications.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Health Science (1)

#### Level 2

- Medical Terminology (1)

#### Level 3

- Health Science Theory\* (1)
- Health Science Clinicals & Theory\* (2)

#### Level 4

- Anatomy and Physiology+\* (1)
- Practicum in Nursing\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Certified EKG Technician
- Certified Clinical Medical Assistant

### Principles of Health Science (1)

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the healthcare industry.

### Medical Terminology (1)

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

### Health Science Theory\* (1)

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

### Health Science Clinicals & Theory\* (2)

The Health Science Clinical course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses.

### Anatomy & Physiology+\* (1)

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

### Practicum in Nursing\* (2)

The Practicum in Nursing course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.



Occupations	Median Wage	Annual Openings	% Growth
Licensed Vocational Nurses	\$45,178	7,186	21%
Registered Nurses	\$68,682	17,493	26%
Nurse Practitioners	\$107,827	977	50%
Nurse Anesthetists	\$154,856	357	23%

Successful completion of the Nursing Science program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



# 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. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

## Pharmacy Statewide Program of Study



The Pharmacy program of study introduces students to occupations and education opportunities related to performing complex medical laboratory tests for the diagnosis, treatment, and prevention of disease. This program of study may also include exploration into the opportunities associated with blood laboratories as well as radiologic technology and ultrasound technology.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Health Science (1)

#### Level 2

- Medical Terminology (1)

#### Level 3

- Health Science Theory\* (1)
- Health Science Clinicals & Theory\* (2)

#### Level 4

- Anatomy and Physiology+\* (1)
- Practicum in Pharmacy\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Certified EKG Technician
- Pharmacy Technician



#### Principles of Health Science (1)

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the healthcare industry.

#### Medical Terminology (1)

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

#### Health Science Theory\* (1)

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

#### Health Science Clinicals & Theory\* (2)

The Health Science Clinical course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses.

#### Anatomy & Physiology+\* (1)

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

#### Practicum in Pharmacy\* (2)

The Practicum in Pharmacy course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Occupations	Median Wage	Annual Openings	% Growth
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$45,032	1,150	20%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%

Successful completion of the Pharmacy program of study will fulfill requirements of the Public Service or STEM endorsement if the math and science requirements are met. Revised – August 2022



# 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 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.

## Plant and Floral Science Statewide Program of Study



The Plant & Floral 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.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources (1)

#### Level 2

- Floral Design (1)
- Greenhouse Operation and Production (1)

#### Level 3

- Horticultural Science (1)
- Advanced Floral Design\* (1)

#### Level 4

- Advanced Plant & Soil Science+ (1)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- Texas State Florist's Association Knowledge Based Floral Certification
- Texas State Florist's Association Level I Floral Certification
- Texas State Florist's Association Level II Floral Certification
- BASF Plant Science Certification



#### Principles of Agriculture, Food & Natural Resources (1)

Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

#### Floral Design (1)

Floral Design is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will develop a respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgments and evaluations. Note: This course satisfies a Fine Arts credit requirement for students on the Foundation High School Program.

#### Greenhouse Operation and Production (1)

Greenhouse Operation and Production is designed to develop an understanding of greenhouse production techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

#### Horticulture Science (1)

Horticultural Science is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production.

#### Advanced Floral Design\* (1)

In this course, students build on the knowledge from the Floral Design course and are introduced to more advanced floral design concepts, with an emphasis on specialty designs and specific occasion planning. This course focuses on building skills in advanced floral design and providing students with a thorough understanding of the design elements and planning techniques used to produce unique specialty floral designs that support the goals and objectives of a specific occasion or event.

#### Advanced Plant & Soil Science+ (1)

Advanced Plant and Soil Science provides a way of learning about the natural world. Students should know how plant and soil science has influenced a vast body of knowledge, that there are still applications to be discovered, and that plant and soil science is the basis for many other fields of science. To prepare for careers in plant and soil science, students must attain academic skills and knowledge, acquire technical knowledge and skills related to plant and soil science and the workplace. Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

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%

Successful completion of the Plant & Floral 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 – August 2022



# Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

## Robotics

### Drone Regional Program of Study



The Robotics regional program of study introduces CTE learners to the occupations and education opportunities related to operating or designing an unmanned aircraft using a ground-based controller and the systems of communications between the controller and the aircraft.

### Secondary Courses for High School Credit

#### Level 1

- Robotics I+ (1)

#### Level 2

- Robotics II\* (1)

#### Level 3

- Scientific Research and Design\* (1)

#### Level 4

- Practicum in Robotics\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- FAA Part 107 Remote Drone Pilot



#### Robotics I+ (1)

In Robotics I, students will transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

#### Robotics II\* (1)

In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs. Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

#### Scientific Research and Design\* (1)

Scientific Research and Design is a broad-based course designed to allow districts and schools considerable flexibility to develop local curriculum to supplement any program of study or coherent sequence. The course has the components of any rigorous scientific or engineering program of study from the problem identification, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. These components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education. Students must meet the 40% laboratory and fieldwork requirement. Students may take this course with different course content for a maximum of three credits.

#### Practicum in Robotics\* (2)

The Practicum in Robotics course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students are encouraged to participate in extended learning experiences such as career and technical student organization and other leadership or extracurricular organizations.

Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineering and Operations Technicians	\$60,757	114	9%
Avionics Technicians	\$59,114	170	9%
Airline Pilots, Copilots, and Flight Engineers	\$165,130	1,150	9%
Commercial Pilots	\$86,310	548	9%

Successful completion of the Robotics (Drone) regional program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022



# 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.

## Teaching and Training Statewide Program of Study



The Teaching and Training program of study prepares CTE learners for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE learners to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Education and Training (1)

#### Level 2

- Human Growth and Development+ (1)

#### Level 3

- Instructional Practices+\* (2)

#### Level 4

- Practicum in Teaching and Training+\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- TEA Educational Aide I

#### Principles of Education and Training (1)

Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self-knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

#### Human Growth and Development+ (1)

Human Growth and Development is an examination of human development across the lifespan with emphasis on research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.

#### Instructional Practices+\* (2)

Instructional Practices is a field-based (practicum) internship that provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators or trainers in direct instructional roles with elementary, middle school, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, develop materials for educational environments, assist with record keeping, and complete other responsibilities of teachers, trainers, paraprofessionals, or other educational personnel.

#### Practicum in Teaching and Training+\* (2)

Practicum in Education and Training is a field-based internship that provides students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. Students in the course work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators in direct instructional roles with elementary-, middle school-, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.



Occupations	Median Wage	Annual Openings	% Growth
Adult Basic and Secondary Education and Literacy Teachers and Instructors	\$48,069	862	17%
Middle School Teachers, Except Special and Career/Technical Education	\$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	\$56,360	719	9%
Special Education Teachers, Secondary School	\$56,720	980	18%

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022



# 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 manufacturing/process engineering.

## Welding Statewide Program of Study



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+ (1)

#### Level 2

- Welding I+ (2)

#### Level 3

- Welding II\* (2)

#### Level 4

- Practicum in Welding\* (2)

\*Required Prerequisite +Recommended Prerequisite

**Specific course offerings and availability are subject to change due to interest and enrollment.**

### Industry-Based Certifications

- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level 1: Entry Welder



#### Introduction to Welding+ (1)

Introduction to Welding will introduce welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

#### Welding I+ (2)

Welding I provide the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

#### Welding II\* (2)

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

#### Practicum in Welding\* (2)

The Practicum in Welding course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Occupations	Median Wage	Annual Openings	% Growth
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	\$40,040	280	9%

Successful completion of the Welding program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022





# INDUSTRY-BASED CERTIFICATIONS

## AGRICULTURE

### Agricultural Technology & Mechanical Systems

- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding

### Animal Science

- Equine Management & Evaluation Certification
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Certified Veterinary Assistant - Level 1

### Plant & Floral Science

- Texas State Florist's Association Knowledge Based Floral Certification
- Texas State Florist's Association Level 1 Floral Certification
- Texas State Florist's Association Level 2 Floral Certification
- BASF Plant Science Certification

## ARCHITECTURE & CONSTRUCTION

### Architectural Drafting Design

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Revit Architecture

### Construction Technology

- NCCER Carpentry Level 1

## ARTS, A/V TECHNOLOGY & COMMUNICATIONS

### Audio Video Production

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro

### Graphic Design & Interactive Media

- Adobe Certified Professional in Graphic Design & Illustration Using Adobe Illustrator
- Adobe Certified Professional in Visual Design & Using Adobe Photoshop

## BUSINESS

### Accounting & Financial Services

- Intuit QuickBooks Certified User

### Business Management

- Entrepreneurship and Small Business
- Microsoft Office Specialist: Microsoft Word Expert (Word & Word 2019)
- Microsoft Office Specialist: Microsoft Excel Expert (Excel & Excel 2019)

### Marketing & Sales

- Stukent Social Media Marketing Certification

## EDUCATION

### Teaching & Training

- TEA Educational Aide 1

## ENGINEERING

### Engineering Foundations

- Autodesk Associate (Certified User) Fusion 360

## HEALTH SCIENCE

### Dentistry

- Certified EKG Technician
- Registered Dental Assistant X-Ray Certification

### Emergency Medicine (EMT)

- Certified EKG Technician
- Emergency Medical Technician - Basic

### Nursing

- Certified EKG Technician
- Certified Clinical Medical Assistant

### Pharmacy

- Certified EKG Technician
- Pharmacy Technician

## HOSPITALITY & TOURISM

### Culinary Arts

- ServSafe Food Manager

## INFORMATION TECHNOLOGY

### Computer Science

- Information Technology Specialist: Java
- Oracle Certified Associate Java SE 8 Programmer

### Cybersecurity

- CompTIA Security+

### Game & App Development

- Certified Professional Programmer - Unity
- Information Technology Specialist: Java

## LAW & PUBLIC SERVICE

### Law Enforcement

- IAED Emergency Telecommunicator

## MANUFACTURING

### Welding

- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level 1: Entry Welder

### Robotics

- FAA Part 107 Remote Drone Pilot

## TRANSPORTATION

### Aviation Pilots

- FAA Part 107 Remote Drone Pilot



## CTE VISION

Career & Technical Education (CTE) students will be productive in leading and serving our society.

## CTE MISSION

Preparing students for the real world in a real way.

## CTE FOCUS

To make sure that every single student finds a place to belong, a passion to pursue and a love for learning that will serve them well beyond the years they spend with us.

### CTE Non-Discrimination Statement

Tomball ISD offers career and technical education programs in programs of study. Admission to these programs is based on admission standards. It is the policy of Tomball ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities and provides equal access to the Boy Scouts and other designated youth groups as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended. It is the policy of Tomball ISD not to discriminate on the basis of race, color, national origin, sex, handicap, or age in its employment practices as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975, as amended; and Section 504 of the Rehabilitation Act of 1973, as amended. Tomball ISD will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

For information about your rights or grievance procedures, contact the Title IX Coordinator, Dr. Steven Gutierrez, at [stevengutierrez@tomballisd.net](mailto:stevengutierrez@tomballisd.net), 281-357-3100, and/or the Section 504 Coordinator, Steven Shiels, at [stevenshiels@tomballisd.net](mailto:stevenshiels@tomballisd.net), 281-357-3140.

### Notificación Pública De No Discriminación En Programas De Educación Técnica Y Vocacional

Tomball ISD ofrece programas de educación profesional y técnica en programas de estudio. La admisión a estos programas se basa en los estándares de admisión. La política de Tomball ISD es no discriminar por motivos de raza, color, origen nacional, sexo o discapacidad en sus programas, servicios o actividades vocacionales y brinda igualdad de acceso a los Boy Scouts y otros grupos juveniles designados según lo exige el Título VI. de la Ley de Derechos Civiles de 1964, según enmendada; Título IX de las Enmiendas Educativas de 1972; y la Sección 504 de la Ley de Rehabilitación de 1973, según enmendada. La política de Tomball ISD no discriminar por motivos de raza, color, origen nacional, sexo, discapacidad o edad en sus prácticas de empleo según lo exige el Título VI de la Ley de Derechos Civiles de 1964, enmendada; Título IX de las Enmiendas Educativas de 1972; la Ley de Discriminación por Edad de 1975, enmendada; y la Sección 504 de la Ley de Rehabilitación de 1973, según enmendada. Tomball ISD tomará medidas para garantizar que la falta de conocimientos del idioma inglés no sea una barrera para la admisión y participación en todos los programas educativos y vocacionales.

Para obtener información sobre sus derechos o procedimientos de queja, comuníquese con el Coordinador del Título IX, Dr. Steven Gutierrez, al [stevengutierrez@tomballisd.net](mailto:stevengutierrez@tomballisd.net), 281-357-3100 o Coordinador del Título IX Steven Shiels, al [stevenshiels@tomballisd.net](mailto:stevenshiels@tomballisd.net), 281-357-3140.