

Career and Technical Education Board Report – December 2022

CTE Goals:

- To have students explore career interest and plan for postsecondary and career opportunities through work-based learning
- To increase the number and types of industry certification and training opportunities available for BISD students
- To provide additional dual enrollment (college credit) opportunities
- To encourage and support participation in Career and Technical Student Organizations (CTSO's) in all program areas such as FFA, SkillsUSA, HOSA, TAFE, and FCCLA
- To have students participate in leadership and develop life-long skills such as interpersonal relationships, teamwork, setting and achieving goals as well as competing in contests where they apply what they have learned in their respective CTE courses in real-world scenarios

Benefits of CTSO's include:

- Provides a hands-on approach to learning
- Refines career objectives through realistic experiences
- Promotes awareness of new career opportunities
- Develops skills and responsibilities for being a role model and mentor
- Cultivates social development and awareness
- Develops a sense of community and volunteerism
- Develops an appreciation and understanding for cultural diversity
- Improves communication and decision-making skills
- Provides for personal development
- Develops interpersonal and leadership skills
- Develops responsibility and self-confidence
- Provides opportunities for recognition

Brownwood ISD's CTE programs offer a sequence of courses that provide students with coherent and rigorous content. This 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. BISD CTE programs affords students the opportunity to train for high skill, high wage, and high demand careers. CTE programs also prepare students to be successful in a rapidly changing workforce and equip them to make informed decisions about future college and career pathways.



Brownwood High School continues to see growth in many areas of its CTE program, with still more room for improvement in others. Currently, there are 851 students enrolled in the CTE courses at BHS.

Courses	2022
<i>Audio/Video</i>	65
<i>Business and Finance</i>	104
<i>Computer Science</i>	101
<i>Education / Career Prep</i>	45
<i>Health Science</i>	189
<i>Photo/Graphic Design</i>	60
<i>Anatomy/Patho / Prin of Tech</i>	85
<i>Forensic Science</i>	114
<i>Welding</i>	88
<i>Automotive</i>	89
<i>Agriculture</i>	206
<i>Architecture</i>	69
<i>Culinary</i>	101
<i>Lifetime Nutrition</i>	115
<i>Professional Communications</i>	124
<i>TOTAL (S)</i>	851

CTE offers students opportunities to earn valued industry certifications and develop a multitude of skills while experiencing a rigorous curriculum with real world opportunities.

**See Attached Endorsement/Certification Sheet*

Photography 1 & 2, Graphic Design 1 & 2

In Photography 1 & 2, students learn how to operate cameras in all modes, learn the basics of lighting technique, and employment opportunities in photography industry. Students work in real world situations, photographing events, including yearbook portraits, football games, other sports and events at school and in our community. With Graphic Design 1 & 2, students are introduced to Adobe Photoshop basics and given the opportunity to get certified through the Adobe Certified Professional Exam.

Forensic Science

Forensic Science is a program that was started this year at BHS that serves as a 3rd or 4th year science course. This course explores multiple career pathways that could be sought after by the student. Students explore 4 different units throughout the year. All units cover some aspect of this particular field, including an introduction to forensics where the students learn how to collect evidence (bag and tag), and what they should be looking for at crime scenes. They are asked to be able to use their intuition as well as their knowledge to not compromise evidence. Students learn about death, including toxicology, entomology, anthropology, and stages of decomposition. The next unit to be explored will be different types of evidence, including but not limited to hair, fibers, fingerprints, and arson. For the final unit students are being asked to create a project over a career in this field, including interviewing someone who is in the career of the students choosing.

Computer Science

This year Computer Science classes have 101 students (up 34 students from last year - 24% increase)!

Since the last report we have had several notable successes:

- A group of Computer Science I students designed the 3D printing model for the rabbit's head for the theater dept production of "The Miraculous Journey of Edward Tulane". Mrs. Fabbini's class did the actual printing.
- The Commercial Drone program produced several newly licensed pilots.
- BHS instituted a new career pathway for Inter-networking Technologies.

Computer Science classes are: Fundamentals of Computer Science, Computer Science I, Computer Science II, Computer Science III, Inter-Networking I, Inter-Networking II (begins Fall 2023), and Emerging/Evolving Technologies (FAA drone licensing and 3D surveying/mapping)
Computer Science I will be starting the Mechatronics unit in the Spring.

Computer Science I, II, and III may count as foreign language credit when taken in succession.
Programming languages covered: JavaScript, Java, and Python

Inter-Networking Technologies teaches students about the various types and protocols of computer networks and technologies. Students completing both I and II will test to earn their Comp TIA Network+ certification.

Drone class students are preparing for their certification exams.

CTSO's

CTE students are afforded the opportunity to join Career and Technical Student Organizations (**CTSO's**) such as FFA, SkillsUSA, HOSA, TAFE, and FCCLA where students participate in leadership and develop life-long skills such as interpersonal relationships, teamwork, setting and achieving goals as well as competing in contests where they apply what they have learned in their respective CTE courses in real-world scenarios.

HOSA

4 HOSA students attended International Leadership Conference this summer in Nashville Tennessee (Trinity Sessoms- Organizational Leadership, Magaly Cervantes-Organizational Leadership
Aishwarya Nigalye- Epidemiology, Health Care Issues, Noeli De La Torre- Health Care Issues)

Mrs. Deen was nationally recognized for the Goodheart Wilcox Service award.



2022-2023 HOSA Officers:

- President – Aishwarya Nigalye
- Vice President – Trinity Sessoms
- Secretary – Addison Bennet
- Treasurer – Chris Robinson
- Reporter – Magaly Cervantes

These students met to make plans for the year in early August with a focus on student-led service driven projects. They chose to specifically help the local Good Samaritan, Salvation Army, and this year's National Service Project, which is "Be the Match". They have successfully held three meetings and are planning on hosting an end of the year Christmas party where they will be collecting supplies for Toys for Kids and Good Samaritan. HOSA participants combined with Ag to help with the community Trunk or Treat and participated in the Fall Festival in conjunction with Theater.



HOSA successfully completed their second blood drive this year and are eagerly awaiting to hear the number of lives that were affected by their donations. HOSA had 55 students and teachers sign up to donate blood the week before Thanksgiving break. A spring blood drive is planned.



HOSA Area 5 Secretary Trinity Sessoms took several members to Fall Leadership Conference where she successfully led the conference with her team. She will end her year's tenure at Area Leadership Conference in February.

Currently HOSA students are completing district online testing to see who qualifies for Area competition HOSA currently has 120 members.

FFA

Fall (leadership development events) have had a great showing at the Cross Timbers District contest. Results are as follows.

Radio Team- 1st place (qualifying for area)

Hudson Reagan
Tynlea Wilson
River Jones

Ag Advocacy-2nd (qualifying for area)

Sir Jones
Jensyn Evans
Michael Stroope
Sydney Stewart
Kaidence Giles

Ag Issues-2nd Place (qualifying for Area)

Alexis Berndt
Riley Morton
Paige Franqui
Tynlea Wilson
Adyson Neel
Ella Locker
Gavin Brandstetter

Senior Quiz-3rd place

Blake Biasioli
Riley Morton
Alexis Berndt
Jade Ortega
Racey Pinkston
Cate Smith

Public Relations- 3rd place

Blake Biasioli
Allie Haynes
Hannah Deen
Hayden Deen

Greenhand Radio-3rd place

Avi Kuhn
Carli Coffee
Stormi Knuckles

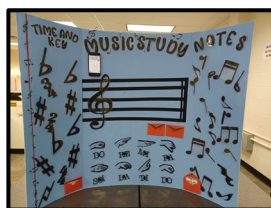
Over the Thanksgiving break students competed at Area and placed the following:

Ag Issues-5th place, Ag Advocacy- 8th place and Radio Broadcasting-12th place

- November 5th-6th marked the second annual Tim Fulton Memorial jackpot show held at the Youth Fair Barns
- The Brownwood FFA chapter show will be held in the Gerald Thomas Pavilion 3107 Stephen F Austin on December 10th. Cattle, sheep, goats and swine will all be exhibited by Brownwood FFA members
- The 71st annual Brown County youth fair will take place January 8th – 14th

TAFE - Education & Training: Educational Internship program

The BHS Educational Training Program includes field-based internships that provide students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. BHS students work in direct instructional roles with elementary-aged students while under the joint direction and supervision of both a supervising teacher and mentor educators. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.



Audio/Visual

A/V Production I is a project-based class where students are expected to demonstrate technical competence and versatility, clear visual storytelling, and the application of filmmaking methods and principles. The students use advanced software including Adobe Premiere Pro.

A/V Production II prepares students for careers in audio/video production. Building on knowledge acquired in A/V Production I, this course advances technical skill in utilizing industry equipment related to lighting and audio, and places special emphasis on the research and technical writing involved in planning productions. This class creates the daily announcements that are shown each day in all classes.

Practicum in Audio/Video Production course spans all aspects of the audio/video communications industry. Building upon the concepts taught in Audio/Video Production I & II, in addition to developing advanced technical knowledge and skills needed for success. Students are expected to develop an increasing understanding of the industry by working in the school's internet radio station. They create playlists, station identifications, and their own daily radio show.

Additional Information:

- Students have the opportunity to learn about sports broadcasting by working at Gordon Wood Stadium.
- Students operate cameras, record replays, change camera shots, and show graphics on the video board.

Building Trades, Welding & Automotive Technology



Building Trades program 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. 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.

Welding introduces welding technology with an emphasis on basic welding laboratory principles and operating procedures. 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. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success. BHS students are also provided with the option of gaining dual credit through Ranger College.

Automotive Technology includes knowledge of the basic automotive systems and the theory and principles of the components that make up each system and how to service these systems. Automotive Basics includes applicable safety and environmental rules and regulations. In Automotive Basics, students gain knowledge and skills in the repair, maintenance, and servicing of vehicle systems. This study allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability. The automotive program also partners with Ranger College to provide students with the opportunity to earn dual credit.

Culinary Arts



Culinary Arts emphasizes the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations.

Intro to Culinary Arts is designed for the beginner to learn basic food preparation skills. Students learn food safety, proper knife skills, recipe reading, proper use of equipment and an introduction to baking techniques. Advanced Culinary Arts students focus on preparation techniques, recipe reading, dry and moist cooking methods and are introduced to regional and global foods. Students work toward earning a ServSafe certificate for food handling.

Business, Finance, & Management

In BIM & Accounting students gain knowledge and skills in economies, global business, marketing, advertising, and product pricing. Students analyze the sales process and financial management principles. 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.

BITS (Brownwood Industry Trade Show)

To showcase our kids' success to local industries and the community, we will continue BITS (Brownwood Industry Trade Show). BITS will be scheduled in February and will be an opportunity for Brownwood High School and the CTE Department to showcase to local industries and the community the many technical opportunities and certifications that are offered at Brownwood ISD – The District of Choice!

BROWNWOOD HIGH SCHOOL
ENDORSEMENTS/CERTIFICATIONS

Endorsement	Sequence/Pathway	Level 1	Level 2	Level 3	Level 4	CERTIFICATIONS
STEM (Science, Technology, Engineering & Math)	Science Option	Biology /Biology Pre AP	Chemistry/ Chemistry Pre AP	Physics/Pre-AP Physics Principles of Technology	Anatomy & Physiology, AP Biology, Pathophysiology or DC	
	Math Option	Algebra 1/Alg 1 Pre AP or Geometry/Pre AP Geometry	Geometry/Pre AP Geometry or Alg II/Pre AP Alg II	Alg II/Pre AP Alg II or PreCal/ Pre AP PreCal	*Pick Two AQR or PreCal and Pre-AP Statistics or AP Calculus or College Algebra (DC)	
	Programming and Software Development	Fundamentals of Computer Science	Computer Science 2	Mobile Application Development	Computer Science 3	MTA-Introduction to Programming Using Java
		Computer Science 1 Prereq: 8th Grade Algebra 1	Computer Science 2	Mobile Application Development	Computer Science 3	
Business & Industry	Plant Science	Principles of Agriculture, Food, and Natural Resources	Floral Design	Greenhouse Operations and Production	Advanced Plant Soil Science	TSFA Floral Skills, TSFA Level one, and TSFA Level two
	Animal Science	Principles of Agriculture, Food, and Natural Resources	Small Animal Management and Equine Science	Livestock Production	Advanced Animal Science	OSHA 30 Certification
	Digital Communications	Principles of Art, Audio Video Tech & Communications	Audio Video Production I	Audio Video Production II	Practicum of Audio/Video	Adobe Certified Associate Premiere Pro
	Design & Multimedia Arts	Principles of Art, Audio Video Tech & Communications	Commercial Photography I	Commercial Photography II	Graphic Design 1 Graphic Design 2	Adobe Certified Associate in Photoshop
	Business Management	Business Information Management I	Business Information Management II	Business Management	Career Prep	A*S*T Fundamental Business Concepts; (MOS)Excel Expert; (MOS) Word Expert
	Accounting and Financial Services	Business Information Management I	Accounting I	Accounting II	Career Prep	
	Culinary Arts	Introduction to Culinary Arts	Culinary Arts	Advanced Culinary Arts	Food Science or Career Prep	Pre-Professional Certification in Culinary Arts Certification; ServSafe
	Welding	Introduction to Welding	Welding 1	Welding 2	Career Prep	AWS D1.1 Certification AWS D9.1 Certification
	Architectural Design	Principles of Architecture	Architectural Design I	Architectural Design II	Career Prep	OSHA 30 Construction Certification
	Automotive	Principles of Transportation Systems	Automotive Basics	Automotive Technology 1: Maintenance and Light Repair	Automotive Technology 2: Automotive Service	OSHA 30 Certification; ASE Entry Level Certification: Engine Repair (ER); Automatic Transmission/Transaxle (AT); Brakes (BR); Electronic/Electrical Systems (EE); Heating and A/C (AC); Manual Drive Train and Axles (MD); Mechanical and Electrical Components (ME)
Public Service	Teaching and Training	Principles of Education and Training	Human Growth and Development	Instructional Practices	Practicum in Education and Training	Education Fundamental Certification; CPR;
	Healthcare Therapeutic	Principles of Health Science	Medical Terminology	Anatomy and Physiology	Pathophysiology	Pharmacy Technician or Certified Nurse Aide/Assistance Certification; NCISE ; CPR
		Principles of Health Science	Medical Terminology	Health Science Theory	Practicum in Health Science-CNA or Practicum in Health Science- Pharmacy Tech	
		Principles of Health Science	Medical Terminology	Health Science Theory-Health Science Clinical	Practicum in Health Science-CNA or Practicum in Health Science- Pharmacy Tech	
Arts & Humanities	Fine Arts	Any first year fine art including Art, Band, Choir, or Theater	Fine Art Year 2	Fine Arts Year 3	Fine Arts Year 4	
	Foreign Language	Four levels of the same language; or two levels of the same language and two levels of a different language				
	Social Studies	5 Social Studies Classes				
Multidisciplinary Studies	Four advanced courses within one endorsement area or among endorsement areas but not in a coherent sequence.					
	Four credits in each of the four foundation subjects (Must include English IV, Chemistry, Physics)					
	Four credits in advanced placement or dual credit courses. The four credits in AP and/or DC must include courses in English, Math, Science, Social Studies, Economics, IOTE or Fine Arts					