

Brownsboro High School

Career And Technical Education
Course Guide



2024-2025

CAREER AND TECHNICAL EDUCATION (CTE) PROGRAM AND COURSE GUIDE

Career and technical education (CTE) is the practice of teaching skills-based careers to students in the school setting developed to introduce the workplace. CTE Programs of Study at Brownsboro ISD offer a sequence of courses that provides students with coherent and rigorous content. Our 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.



CTE PROGRAMS OF STUDY

Business and Industry Endorsement	Agriculture Food and Natural Resources				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Animal Science	Principles of Agriculture Food and Natural Resources	Small Animal Management / Equine Science	Livestock Production	Vet Med productions	Equine Management & Evaluation Elanco Fundamentals of Animal Science
				Advanced Animal	
				Practicum in AFNR Animal Science	
Plant Science	Principles of Agriculture Food and Natural Resources	Landscape Management	Floral Design	Advanced Floral Design	TSFA Knowledge Based, Level 1 & Level 2
				Practicum in AFNR Plant Science	
Agricultural Technology and Mechanical Systems	Principles of Agriculture Food and Natural Resources	Ag Mechanics and Metal Technology	Ag Structures Design & Fabrication	Ag Equipment Design & Fabrication	NCCER Core AWS D1.1 AWS D9.1
				Practicum in AFNR Ag Mech Practicum in AFNR 2 Ag Mech	



Business and Industry Endorsement	Arts, Audio-Video Technology and Communications				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Graphic Design & Interactive Media	Principles of AAVTC	Graphic Design 1	Graphic Design 2	Practicum in Graphic Design & Illustration	Adobe Certified Professional in Graphic Design and Illustration using Adobe Illustrator
	Video Game Design			Career Prep	
GDIM Comm Photo	Principles of AAVTC	Commercial Photo 1	Commercial Photo 2	Practicum of Commercial Photo	Adobe Certified Professional in Visual Design using Adobe Photoshop
Digital Communication	Principles of AAVTC	Audio/Video Production I	Audio/Video Production II	Practicum in Audio/Visual Production	
	Professional Communications				

Business and Industry Endorsement	Hospitality & Tourism				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Culinary Arts	Intro Culinary Arts	Culinary Arts	Advanced Culinary Arts (2 credits)	Practicum in Culinary Arts (2 credits)	Food Protection Manager



Business and Industry Endorsement	Business, Management and Finance				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Business Management	Principles of BMF (BJH only)	Business Law	Business Management	Practicum in Business Management	MOS: Microsoft Excel Expert MOS: Microsoft Word Expert MOS: Microsoft Access Expert
	Business Information Management I		Human Resources/ Global Business	Career Prep	

Business and Industry Endorsement	Manufacturing				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Robotics & Automation Technology	Principles of Applied Engineering	Robotics I	Robotics II	Practicum in Manufacturing (2 credits)	C-101 CI 4.0 Assoc - Basic C-103 CI 4.0 Assc Robot Systems Operations
				Career Prep	

Public Service Endorsement	Human Services				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Family & Community Services	Principles of Human Services	Child Development	Community Service Learning	Practicum in Human Services	Community Service Worker
				Career Prep	



Public Service Endorsement	Health Science				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Diagnostic & Therapeutic Services	Principles of Health Science	Medical Terminology	Anatomy & Physiology	Health Science Theory	Patient Care Technician
Exercise, Wellness & Restoration	Principles of Health Science	Sports Medicine 1	Sports Medicine II	Practicum in Entrepreneurship	Certified Personal Trainer
		Medical Terminology	Anatomy & Physiology	Career Prep	

Business and Industry Endorsement <i>Developing POS</i>	STEM				
	Level 1	Level 2	Level 3	Level 4	Certification Opportunities
Cybersecurity	Principles of Information Technology	Internetworking Technologies I	Internetworking Technologies II	Practicum in Information Technology	TBD



Career and Technical Education

Business and Industry Endorsement

Agriculture, Food and Natural Resources, Architecture and Construction

Principles of Agriculture, Food and Natural Resources, 1 Credit

Grade Level: 8-9 **CTE Level:** 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. This is the foundation class to all other agriculturally related courses.

Equine Science Credit, 0.5 Credit (1 semester)

Grade Level: 9-12 **CTE Level:** 2

Prerequisite: Principles of Agriculture, Food and Natural Resources

This course is designed to introduce students to the scientific principles of equine animal systems and to the equine industry. To prepare for careers in the field of animal science, students must enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations

Small Animal Management, 0.5 Credit (1 semester)

Grade Level: 9-12 **CTE Level:** 2

Prerequisite: Principles of Agriculture, Food and Natural Resources

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.

Livestock Production, 1 Credit

Grade Level: 10-12 **CTE Level:** 3

Prerequisite: Principles of Agriculture, Food and Natural Resources

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. Students in this class may obtain their Beef Quality Assurance Certification.

Veterinary Medical Applications with Lab, 2 Credits

Grade Level: 11-12 **CTE Level:** 4

Prerequisites: equine science, small animal management or livestock production

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species. Multiple certifications are available in this course, including pet first aid, veterinary record maintenance, and animal care team certificates. If the student obtains an off school campus clinical site to obtain required hours for the state of Texas, a veterinary technician assistant's certification, this course will supplement those hours; a two period class.

Advanced Animal Science, 1 Credit

Grade Level: 11-12 **CTE Level:** 4

Prerequisites: biology and chemistry, algebra I and geometry; small animal management, equine science or livestock production

Notes: This class may be counted as an advanced science credit.

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.

Wildlife, Fisheries and Ecology Management, 1 Credit

Grade Level: 9-12 **CTE Level:** 2

Wildlife, Fisheries, and Ecology Management examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices. Students in this class will be given the opportunity to utilize the Texas Outdoors Tomorrow curriculum and obtain their Texas Parks and Wildlife hunter's safety, boater's safety and angler's safety cards.

Landscape Design and Management, 1 Credit

Grade Level: 9-11 **CTE Level:** 2

Landscape Design and Management is designed to develop an understanding of landscape design and management 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.

Floral Design, 1 Credit

Grade Level: 9-12 **CTE Level:** 3

Prerequisite: Principles of Agriculture, Food and Natural Resources

Notes: This course may count as a Fine Arts credit.

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 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 judgements and evaluations. Students in this class may earn their level 1 Texas State Florists Certification.

Advanced Floral Design, 1 Credit

Grade Level: 10-12 **CTE Level:** 4

Prerequisites: Floral Design with Knowledge Based State Floral Certification

Advanced floral design is a course built upon the framework of skills acquired in the level 1 Floral Design course. Students will develop more intricate and complex floral designs in this one credit, two period course.

Advanced Plant and Soil Science, 1 Credit

Grade Level: 11-12 **CTE Level:** 4

Prerequisite: Biology and Chemistry

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.

Practicum in AFNR in Floral, 2 credits

Grade Level: 11-12 CTE Level: 4

Prerequisites: Floral Design with Knowledge Based State Floral Certification

Agriculture Leadership Research and Communications, 1 credit

Grade Level: 11-12 CTE Level: 4

Agricultural Leadership, Research and Communications focuses on challenging students to use higher level thinking skills, develop leadership abilities, employ standard research principles, and communicate agricultural positions effectively with all stakeholders.

Agriculture Mechanics and Metal Technologies, 1 Credit

Grade Level: 9-12 CTE Level: 2

Prerequisite: Principles of Agriculture, Food and Natural Resources

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 metal 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. working techniques.

Agriculture Structures Design and Fabrication 1 Credit

Grade Level: 10-12 CTE Level: 3

Prerequisite: Agriculture Mechanics and Metal Technologies

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. For safety considerations, course enrollment may be limited. Prior to enrollment students may be required to satisfy skills/safety based entry requirements.

Agricultural Equipment Design and Fabrication 1 Credit

Grade Level: 10-12 CTE Level: 4

Prerequisite: Agriculture Mechanics and Metal Technologies

In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. For safety considerations, course enrollment may be limited. Prior to enrollment students may be required to satisfy skills/safety based entry requirements.

Practicum in Agriculture, Food and Natural Resources focus in Ag. Engineering, Animal Science, or Plant Science 2 Credit

Grade Level: 11-12 CTE Level: 4

Prerequisites: Minimum of two previous courses in AFNR Program of Study of class requesting.



Practicum in Agriculture, Food, and Natural Resources 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 experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. 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. For safety considerations, course enrollment may be limited. Prior to enrollment students may be required to satisfy skills/safety based entry requirements.

Business and Industry Endorsement **Arts, Audio Visual Technology and Communications**

Principles of Art, Audio/Video Technology and Communication, 1 Credit

Grade Level: 9 **CTE Level:** 1

The goal of this course is that the student understands arts, audio/video technology, and communications systems. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

Professional Communications, 0.5 Credit (1 semester)

Grade Level: 9-12 **CTE Level:** 1

Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research. This is a locally required course for all students.

Commercial Photography I, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

Prerequisites: Principles of Art, Audio/Video Technology and Communication

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 commercial photography industry with a focus on creating quality photographs. Students may gain certification in Adobe Photoshop.

Commercial Photography II, 1 Credit

Grade Level: 11-12 **CTE Level:** 3



Prerequisites: Commercial Photography I

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 advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

Practicum in Commercial Photography, 2 Credits

Grade Level: 12 **CTE Level:** 4

Prerequisites: Commercial Photography 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 advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs in conjunction with 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. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions in this two credit, two period course.

Video Game Design, 1 Credit

Grade Level: 9-10 **CTE Level:** 1

Video Game Design will allow students to explore one of the largest industries in the global marketplace and the new emerging careers it provides in the field of technology. Students will learn gaming, computerized gaming, evolution of gaming, artistic aspects of perspective, design, animation, technical concepts of collision theory, and programming logic. Students will participate in a simulation of a real video game design team while developing technical proficiency in constructing an original game design.

Graphic Design and Illustration I, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

Prerequisites: Principles of Art, Audio/Video Technology and Communication or Video Game Design

In Graphic Design and Illustration, the 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. Projects, such as designing and developing logos, advertisements, and hard copy layouts will be assigned which may require the student to work as an individual and/or in collaborative groups to produce results utilizing graphics arts, technology and equipment. Students may gain certification in Adobe InDesign.

Graphic Design and Illustration II, 1 Credit

Grade Level: 11-12 **CTE Level:** 3

Prerequisites: Graphic Design and Illustration I

Within Graphic Design and Illustration II, students will be expected to develop an advanced understanding of the industry of arts, audio video technology and communication systems with a focus on mastery of content knowledge and skills.

Practicum in Graphic Design and Illustration, 2 Credits

Grade Level: 12 **CTE Level:** 4



Prerequisites: Graphic Design and Illustration II

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 opportunities. This is a two credit course offered in a two period time frame.

Digital Audio I/Bear Radio, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

Prerequisites: Principles of Art, Audio/Video Technology and Communication

In Digital Audio I, the student will be introduced to the evolution and current trends of the audio industry. The student is expected to summarize the history and evolution of the audio production industry; and analyze the current trends of the audio production industry. Upon completion of the class, the student is expected to be aware of the current practices, and future trends for audio production careers such as radio and television broadcasting, video and film, animation and game design, music production, and live sound. Basic legal and ethical concepts will be covered and students will be graded upon the correct application of knowledge in utilizing audio equipment on BISD's on campus radio station, 94.7 KJBB Bear Radio. Assignments may include but are not limited to producing commercials, announcements, and shows both live and off air.

Digital Audio II/Bear Radio, 1 Credit

Grade Level: 11-12 **CTE Level:** 3

Prerequisites: Digital Audio I

In Digital Audio II, students will be expected to develop an advanced technical understanding of the equipment in use at BISD's on campus radio station, 94.7 KJBB Bear Radio. Projects and assignments will require further mastery and application of skills and knowledge acquired in Digital Audio I.

Practicum in Digital Audio/Bear Radio, 2 Credits

Grade Level: 12 **CTE Level:** 4

Prerequisites: Digital Audio II

The Practicum in Digital Audio 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. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

Business and Industry Endorsement



Hospitality and Tourism

Introduction to Culinary Arts, 1 Credit

Grade Level: 9-12 **CTE Level:** 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 course is offered as a classroom and laboratory-based course.

Culinary Arts, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

Prerequisites: Intro to Culinary Arts

Fundamentals and principles of the art of cooking and the science of baking are found in this course, and includes management and production skills and techniques. This course is offered in a laboratory-based setting.

Advanced Culinary Arts, 2 Credit

Grade Level: 11-12 **CTE Level:** 3

Prerequisites: Culinary Arts

Advanced culinary arts is a course offered to students that have gained experience in the culinary arts lab and classroom setting that has prepared them for the aspects of overseeing and maintaining shared duties in the 31 East Restaurant, located at the BHS campus. Students assist in preparing and serving food on a regular basis for staff and special guests on campus. This course is built into a two credit class which may be taught in 1 or 2 period sections.

Practicum in Culinary Arts, 2 Credit

Grade Level: 12 **CTE Level:** 4

Prerequisites: Culinary Arts

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. This class integrates academic and career and technical education; provides 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. It is a two hour, two credit course taught in a two period time frame.

Business and Industry Endorsement **Business Management and Administration**

Business Information Management I, 1 Credit

Grade Level: 9-11 **CTE Level:** 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. Students may gain certification in Microsoft Office programs such as Excel, Outlook, PowerPoint and Word

Global Business 0.5 Credit (1 semester)

Grade Level: 10-12 **CTE Level:** 2

Global Business is designed for students to analyze global trade theories, international monetary systems, trade policies, politics, and laws relating to global business as well as cultural issues, logistics, and international human resource management.

Human Resources, 0.5 Credit (1 semester)

Grade Level: 10-12 **CTE Level:** 2

Human Resources Management is designed to familiarize students with the concepts related to human resource management, including legal requirements, recruitment and employee selection methods, and employee development and evaluation. Students will also become familiar with compensation and benefits programs as well as workplace safety, employee-management relations, and global impacts on human resources.

Business Law, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

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.

Business Management, 1 Credit

Grade Level: 11-12 **CTE Level:** 3

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.

Financial Math, 1 Credit

Grades: 11-12 **CTE Level:** 2

Prerequisites: Algebra I, Algebra II

Financial Mathematics is a course about personal money management. Students will apply critical-thinking skills to analyze personal financial decisions based on current and projected economic factors. This course may count as a core math credit.

Accounting I, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

Prerequisite: Algebra I

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 Credit

Grade Level: 11-12 **CTE Level:** 3

Prerequisite: Accounting I

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.

Practicum in Business Management, 2 Credits

Grade Level: 12 **CTE Level:** 4

Prerequisite: 2 courses in the Business Management Program of Study

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. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

Business and Industry Endorsement

Manufacturing

Principles in Applied Engineering (Robotics)

Grade Level: 7-12

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields of engineering and will be able to make informed career decisions. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments. This course could potentially be offered separately at both the BJHS and BHS campuses, with both being for high school credit. Seventh grade students may repeat the course in 8th grade, receiving credit one time overall.

Robotics I

Grade Level: 9-12

Prerequisite: Principles of Applied Engineering



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

Grade Level: 10-12

Prerequisites: Robotics I

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.

Practicum in Manufacturing

Grade Level: 11-12 **CTE Level:** 4

Prerequisites: Robotics II

The Practicum in Manufacturing 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.

Public Services Endorsement **Education and Training/Family and Community Services**

Principles of Human Services, 1 credit

Grade Level: 9–12 **CTE Level:** 1

Principles of Human Services is a laboratory course that will enable students to investigate careers in the Human Services Career Cluster, including counseling and mental health, early childhood development, family and community, personal care, and consumer services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

Child Development, 1 Credit

Grade Level: 10–12 **CTE Level:** 2

Suggested Prerequisite: Principles of Human Services

Child Development is a technical laboratory course that addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children.

Community Service Learning, 1 Credit

Grade Level: 10-11 **CTE Level:** 3

Family and Community Services is a laboratory-based course designed to involve students in realistic and meaningful community-based activities through direct service or service-learning experiences. Students are provided opportunities to interact with and provide services to individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics.



Practicum in Human Services, 2 Credits

Grade Level: 11-12 **CTE Level:** 4

Prerequisites: Community Service Learning and certification

Practicum in Human Services provides background knowledge and occupation-specific training that focuses on the development of consumer services, early childhood development and services, counseling and mental health services, and family and community-services careers. Content for Practicum in Human Services is designed to meet the occupational preparation needs and interests of students and should be based upon the knowledge and skills selected from two or more courses in a coherent sequence in the human services cluster. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Public Services Endorsement **Health Science**

Principles of Health Science, 1 Credit

Grade Level: 9-12 **CTE Level:** 1

Notes: Students that intend to pursue the health science public service endorsement (or certified nurse assistant certification) are recommended to take this class as a foundation course

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.

The course focuses on health careers, exploration, leadership development, ethical and legal responsibilities, the history of health care and the economics of health care. Students will develop a concept of health and wellness from the perspective of a health consumer as well as a potential health professional. The course is designed to develop health care specific knowledge and skills in effective communications, client care, safety, first aid, and CPR.

Medical Terminology, 1 Credit

Grade Level: 10-12 **CTE Level:** 2

Prerequisites: Principles of Health Science

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.

Anatomy and Physiology, 1 Credit

Grade Level: 11-12 **CTE Level:** 3

Prerequisites: Biology and Chemistry

The Anatomy and Physiology course is designed for students to conduct laboratory experiments,, use scientific methods during 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. (Also, see information listed in the science section.)

Health Science Theory, 1 Credit

Grade Level: 12 **CTE Level:** 3

Prerequisites: Meet TVCC admission requirements and it is recommended that the student complete Principles of Health Science, Biology, Medical Terminology, and Anatomy and Physiology

This course involves clinical rotations in medical environments. Students learn to maintain a safe environment, prevent hazardous situations, follow protocol related to hazardous materials, and follow strategies for the prevention of disease and infections. Students will perform health screenings, monitor examinations, observe clients during care and procedures, and accurately measure and report client vital signs and other indicators of health status. Students must make a minimum of 80% or a “B” on each training activity in order to qualify to take the state certification exam and complete clinical requirements to be a certified nurse’s assistant at the end of the course sequence.

Sports Medicine I, 1 credit

Grade Level: 9-10 **CTE Level:** 2

This course provides an opportunity for the study and application of the components of sports medicine including sports medicine, concepts of sports injury, athletic healthcare team, sports injury law, sports injury prevention, sports psychology, nutrition, recognition of injuries, emergency action plan and initial injury evaluation, first aid/CPR/AED, the injury process, immediate care of athletic injuries of specific body areas, skin conditions in sports, blood borne pathogens, thermal injuries, and special medical concerns of the adolescent athlete.

Sports Medicine II

Grade Level: 10 - 12 **CTE Level:** 3

Prerequisites: Sports Medicine I

This course provides a more in-depth study and application of the components of sports medicine including: CPR and AED certification, rehabilitative techniques; therapeutic modalities; prevention, recognition, and care of injuries to the head and face, spine, upper extremity, lower extremity; taping and bandaging; injuries to the young athlete; substance abuse in sports; and general health concerns in sports medicine.

Career Preparation and College Transition

Career Prep, 2 Credits

Grade Level: 12 **CTE Level:** 4

Prerequisite: Must take either the TSIA, ACT or SAT

This career and technology education class consists of two class periods. During the first class period the student is required to attend TEKS based instruction in the classroom setting. The second period of the class allows the student to depart to an approved training site for occupational skills application.

Students are required to obtain and maintain paid employment (at least 10 hours weekly) to be enrolled in this class. Prior to the start of the school year, enrolled students are required to contact the BHS CTE director at (903) 852-2321 to document their employment training plan information. State requirements include the student providing routine documentation of work hours and wages throughout their enrollment in the class.

The Career Preparation I and II courses provide opportunities for students to participate in a self-selected, work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing



workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.