

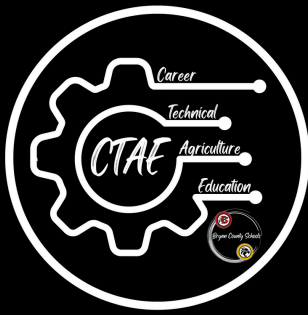
2025-2026

# CTAE PATHWAYS

Bryan County Schools







# Explore Your Opportunities!

99% Graduation Rate among BCS Pathway Completers

## Current Pathway Offerings

### **Agriculture, Food, & Natural Resources**

- Agriculture Mechanics Systems
- Horticulture Mechanical Systems

### **Arts, AV Technology & Communication**

- Audio-Video Technology and Film I
- Graphic Communication

### **Business Management & Administration**

- Business & Technology
- Entrepreneurship
- Human Resources Management

### **Education & Training**

- Early Childhood Care & Education I
- Early Childhood Care & Education II
- Teaching as a Profession

### **Finance**

- Business Accounting
- Financial Services

### **Government & Public Administration**

- JROTC - Army

### **Health Science**

- Therapeutic Services - Allied Health & Medicine
- Therapeutic Services - Exercise Physiology
- Therapeutic Services - Patient Care
- Therapeutic Services - Sports Medicine

### **Hospitality & Tourism**

- Culinary Arts

### **Manufacturing**

- Mechatronics
- Manufacturing

### **Science, Technology, Engineering, & Mathematics**

- Engineering & Technology

### **Work-Based Learning**

- Work-Based Learning Job Opportunities
- Internship Job Opportunities

## Future Pathway Offerings

Automotive Technology (w/ EV Component)

Construction

Distribution and Logistics

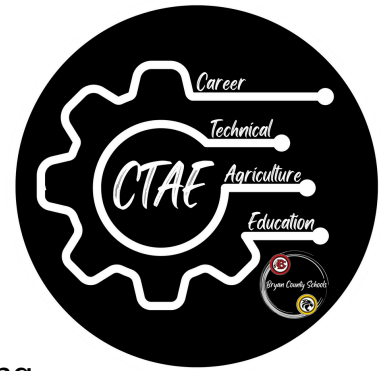
Electrical

Industrial Maintenance

Plumbing

Welding

# Agriculture, Food & Natural Resources



Agricultural and farm equipment mechanics are responsible for the maintenance, repair, and installation of machines that increase the efficiency of farming activities, such as planting, harvesting, and irrigating crops. Important skills for this pathway include the ability to maintain and repair farm machines, such as large tractors or combines. Dairy equipment repairers maintain, and repair milking machines and other equipment used by dairy farmers. Modern farm equipment utilizes computers, electronics, and hydraulics, which means that workers need to continually update their skills.

## Agricultural Mechanics Systems Courses

- Basic Agricultural Science
- Agricultural Mechanics Technology I
- Agricultural Mechanics Technology II

## Horticulture Mechanical Systems Courses

- Basic Agricultural Science
- Agricultural Mechanics Technology I
- General Horticulture & Plant Science

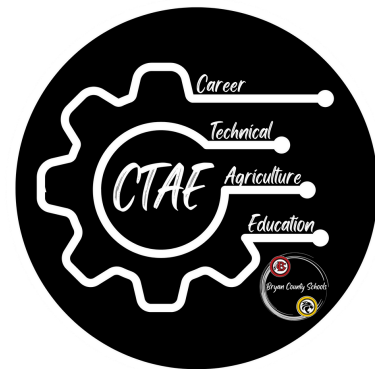
## *Career Possibilities:*

Welder, Mechanic, Carpenter, Farm Manager, Animal Caretaker, Electrician, Agricultural Inspector, Barn Manager, Animal Trainer, Veterinarian, Wildlife Removal/Relocate, Livestock Buyer, Animal Nutritionist, Florist, Landscaping/Groundskeeper, Tree Trimmer/Pruner, Forestry Worker, Conservation Scientist, Farmer/Rancher, Agriculture Technician

A career in horticulture mechanical systems offers opportunities in equipment operation, greenhouse technology, landscape installation, irrigation systems, turfgrass management, production agriculture, parks and recreation services, and agricultural sales and service. Jobs include turf equipment technician, irrigation specialist, landscape foreman, greenhouse operator, small engine mechanic, and equipment sales representative.

Ag Mechanics Occupations	Education Needed	Median Salary
Agricultural Inspectors	High School Diploma	\$38,010
Welder, Cutter, Fitter	Postsecondary Certification	\$44,000
Agricultural Technician	Associate's Degree	\$50,000
Carpenter	High School Diploma	\$50,500
Electrician	High School Diploma	\$59,900
Agricultural Engineer	Bachelor's Degree	\$73,000

# Arts, AV Technology & Communications



This Program of Study may serve as a graduation guide for the next four plus years, along with other career planning and educational materials. Courses listed in this model may include recommended coursework and should be individualized to students' educational and career goals. Each graduation plan needs to meet minimum high school graduation requirements. Dual Enrollment courses can be high school academic and/or career technical education courses.

## Audio-Video Technology & Film I Courses

- Audio-Video Tech & Film I
- Audio-Video Tech & Film II
- Audio-Video Tech & Film III

## Graphic Communication Courses

- Intro to Graphics & Design
- Graphic Design & Production
- Advanced Graphic Output Processes

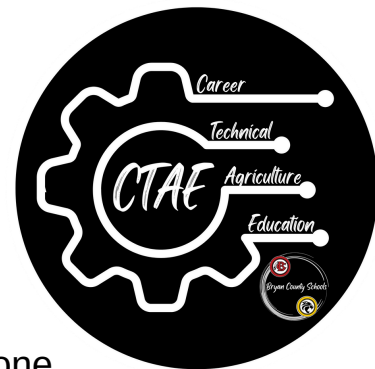
### *Career Possibilities:*

Set & Exhibit Designers, Sound Engineering Technicians, Graphic Designers, Technical Directors/Managers, Video Editors, Lighting Technicians, Broadcast Technicians, Audio Technicians, Multimedia Producers, Directors—Stage, Television, & Film, Photographers, Desktop Publishers, Commercial & Industrial Designers, Production Artists, Package Designers, Advertising Designers, User Interface (UI) Designers, Social Media Content Designers, Motion Graphic Artists, Multimedia Artists & Animators, Prepress Technicians, Web Developers

Occupations	Education Needed	Median Salary
Videographer	High School Diploma	\$43,200
Broadcast Technicians	Associate's Degree	\$44,790
Audio/Video Technician	Postsecondary Certification	\$47,600
Lighting Technician	Postsecondary Certification	\$50,000
Graphic Designer	Bachelor's Degree	\$57,000
Film & Video Editor	Bachelor's Degree	\$60,300
Web Developer	Associate's Degree	\$62,000
Motion Graphic Artist	Bachelor's Degree	\$78,000
Production Artist	Bachelor's Degree	\$90,000
Art Director	Bachelor's Degree	\$102,000



# Business Management & Administration



A strong foundation of business concepts integrated with technology skills used in business will prepare workers for every occupation.

Specific relevant careers include the support service industry, which is one of the largest job providers in the U.S. economy. Support service positions include tasks such as managing projects, scheduling, planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. As technology continues to advance, support service workers will increasingly assume the role of information and communication managers. Education and training for jobs in this pathway range from high school career and technical career programs to one- and two-year programs. Written, oral and verbal communication skills, flexibility, personal presentation, leadership, time management and teamwork are all skills vital to this career area.

## Business & Technology Courses

- Intro to Business & Technology
- Business & Technology
- Business Communications

## Entrepreneurship Courses

- Intro to Business & Technology
- Legal Environment of Business
- Entrepreneurship

## Human Resources Management Courses

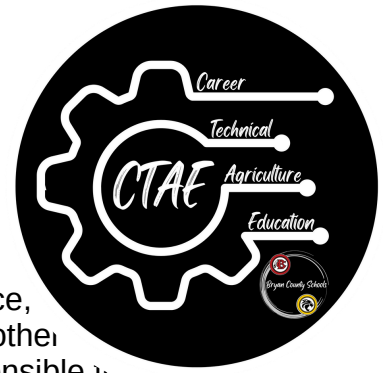
- Intro to Business & Technology
- Legal Environment of Business
- Human Resources Principles

## *Career Possibilities:*

Accountant, Entrepreneur, Business Manager, Management Analyst, Word Processor/Typist, Stock Clerk, Shipping & Receiving Clerk, Budget Analyst, Legal Secretary, Medical Secretary, Database Administrator, Computer Operator, Computer and Information Systems Manager, Human Resources Specialist, Event Planner, Project Management Specialist, Public Relations Specialist, Sales Manager

Occupations	Education Needed	Median Salary
Loan Officer	Bachelor's Degree	\$75,000
Business Intelligence Analysts	Bachelor's Degree	\$87,000
Accountant	Bachelor's Degree	\$93,500
Project Management Specialist	Bachelor's Degree	\$115,500
Public Relations Manager	Bachelor's Degree	\$119,000
Sales Manager	Bachelor's Degree	\$132,300

# Education & Training



Preschool, kindergarten, and elementary school teachers play a vital role in the development of children. They introduce children to math, language, literacy, science, and social studies. They use games, music, artwork, films, books, computers, and other tools to teach basic skills. They also work with students individually. They are responsible for planning engaging lessons, along with using varied instructional strategies, assessing student learning and effectively managing their classroom. Most early childhood education teachers work a 10-month school year with a 2-month vacation during the summer. Many teachers work more than 40 hours a week. Teachers often work with students from varied economic, racial and religious backgrounds. All 50 states require public school teachers to be licensed, have a bachelor's degree, and have completed an approved teacher training program with a prescribed number of subject and education credits, as well as supervised practice teaching. Teachers also regularly attend trainings on effective instruction, curriculum updates and technology to be used in the classroom. ensure their teaching skills so they can instruct and use the latest technology in the classroom. Requirements for public school teachers, including preschool, are usually more stringent than those for private school teachers. Many job openings will result the large number of teachers expected to retire over the next several years. Job prospects are often better in inner cities and rural areas than in suburban districts.

## Early Childhood Care & Education I Courses

- Early Childhood Education I
- Early Childhood Education II
- Early Childhood Education III

## Early Childhood Care & Education II Courses

- Early Childhood Education I
- Early Childhood Education II
- Early Childhood Education Practicum

## Teaching as a Profession Courses

- Examining the Teaching Profession
- Contemporary Issues in Education
- Teaching as a Profession Practicum

### *Career Possibilities:*

Childcare Provider, Childcare Manager, Preschool Teacher, Teacher Assistant/Paraprofessional, Classroom Teacher, Special Education Teacher, School Administrator, Social Worker, School Counselor, Media Specialist, School Psychologist, Instructional Coordinator, Behavioral Interventionist, Recreation Worker, Coach

Occupation Specialities	Education Needed	Median Salary
Paraprofessional	Associate's Degree	\$30,000
Childcare Worker	High School Diploma	\$33,000
Teacher	Bachelor's Degree	\$56,000
Special Education Teacher	Bachelor's Degree	\$63,000
School Administrator	Master's Degree	\$100,000



# Finance



The Finance Career Cluster prepares students for careers in financial planning, insurance, accounting, and business financial management. These careers span various sectors and require skills in organization, time management, customer service, and communication. Through coursework in Financial Services and Business Accounting, students gain experience in budgeting, financial reporting, and regulatory compliance. Programs prepare students for postsecondary options ranging from apprenticeships and two-year programs to four-year degrees. Workers in this field manage money, support clients in reaching financial goals, and ensure accurate financial documentation. Career options include loan officer, teller, compliance officer, credit analyst, internal auditor, bill collector, mortgage underwriter, customer service representative, commercial loan specialist, and accounting assistant.

## Business Accounting Courses

- Intro to Business & Technology
- Financial Literacy
- Principles of Accounting I

## Financial Services Courses

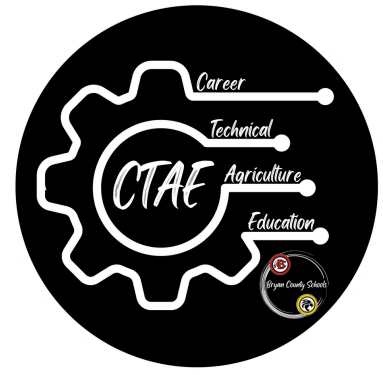
- Intro to Business & Technology
- Financial Literacy
- Banking, Investing, & Insurance

### *Career Possibilities:*

Claims Adjusters, Examiners & Investigators,  
Claims Examiners, Property & Casualty  
Insurers, Insurance Appraisers, Auto Damage,  
Insurance Sales Agents, Insurance  
Underwriters, Computer Scientists,  
Administrative Support Specialists, Health  
Specialists, Accountants, Actuaries, Auditors,  
Bookkeepers, Payroll Clerks, Financial  
Analysts, Budget Analysts, Billing and Posting  
Clerks, Tax Preparers, Loan Officers, Credit  
Analysts, Financial Manager

Occupations	Education Needed	Median Salary
Bookkeeping & Accounting Clerk	Associate's Degree	\$45,500
Tax Preparer	Associate's Degree	\$50,000
Loan Officer	Bachelor's Degree	\$65,700
Insurance Underwriter	Bachelor's Degree	\$79,800
Budget Analyst	Bachelor's Degree	\$79,900
Accountant & Auditor	Bachelor's Degree	\$93,500
Personal Financial Advisor	Bachelor's Degree	\$99,600
Financial Analyst	Bachelor's Degree	\$99,900

# Government & Public Administration



The Government and Public Administration program offers a wide variety of career opportunities for students. Choosing a career in this service industry provides students with a challenging pathway to their future.

If you visit a Government and Public Administration classroom in Georgia, you may see many forms of government related projects and activities in simulation as students learn to plan and execute government functions and the local, state and federal levels, but you definitely will see students excited about learning.

The pathway offered as part of the Government and Public Administration Career Cluster and the JROTC military branches of pathway courses offer schools the chance to provide students preparation for leadership development, military studies, and postsecondary education readiness. There will always be a need for qualified professionals in these areas, and Georgia schools are helping to prepare a dedicated public administration workforce and national security for the future.

## JROTC - Army Courses

- Army JROTC LET I
- Army JROTC LET II
- Army JROTC LET III
- Army JROTC LET IV

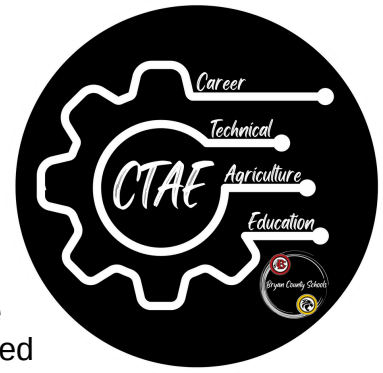
## *Career Possibilities:*

Enlisted Soldier, Commissioned Officer, Pilot, Auto Maintenance, Warrant Officer, Linguist, Operations Specialist, Medical, Clerical, Police Officer, Communications Specialist, Air Traffic Controller, Avionics Technician, Heavy Equipment Mechanic, Electrician, Logistics Specialist, Recruiting/Retention Specialist, Office Manager

Occupations	Education Needed	Median Salary
General Enlisted	High School Diploma	\$27,600
Police Officer	High School Diploma	\$50,000
Commissioned Officer	Bachelor's Degree	\$66,400
Avionics Technician	Associate's Degree	\$73,900
Nuclear Reactor Operator	High School Diploma	\$86,000
Air Traffic Controller	Associate's Degree	\$158,900



# Health Science



Students who successfully complete the Essentials of Healthcare course will also earn credit for the Anatomy/Physiology science course as an embedded credit. The grade earned in Essentials will serve as the grade for Anatomy/Physiology. The Allied Health & Medicine and Exercise Physiology pathways prepare students for careers that promote health, diagnose and treat illness, and support physical performance and recovery. The pathway offers a foundation in medical terminology, human anatomy, patient care, and therapeutic practices. Students are introduced to diverse healthcare fields such as nursing, physical therapy, occupational therapy, sports medicine, medical assisting, and laboratory sciences. Careers in these areas may involve supporting patient care teams in hospitals, clinics, rehabilitation centers, or research labs. The Exercise Physiology pathway also focuses on movement science and human performance, helping students explore careers related to athletic training, kinesiology, personal training, and wellness coaching. These roles promote injury prevention and physical conditioning, often working in sports, fitness, or clinical settings. Both pathways emphasize applied healthcare skills and prepare students for further education and credentialing in high-demand medical and wellness fields.

## Therapeutic - Allied Health & Medicine Courses

- Intro to Healthcare Science
- Essentials of Healthcare
- Allied Health & Medicine

## Therapeutic - Exercise Physiology Courses

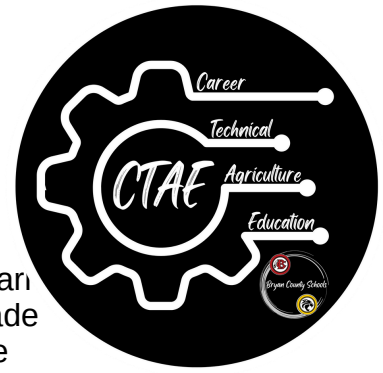
- Intro to Healthcare Science
- Essentials of Healthcare
- Fundamentals of Exercise Physiology

### *Career Possibilities:*

Registered Nurse, Physical Therapist, Occupational Therapist, Medical Assistant, Medical Laboratory Technician, Patient Care Technician, Surgical Technologist, Radiologic Technologist, Dental Assistant, Respiratory Therapist, Health Information Technician, Medical Office Assistant, Clinical Laboratory Technologist, Certified Nursing Assistant, Athletic Trainer, Exercise Physiologist, Physical Therapy Assistant, Rehabilitation Aide, Fitness Trainer, Wellness Coach

Occupations	Education Needed	Salary
Athletic Trainer	Bachelor's Degree	\$48,400
Exercise Physiologist	Bachelor's Degree	\$50,300
Medical Laboratory Technician	Associate's Degree	\$51,200
Respiratory Therapist	Associate's Degree	\$62,800
Registered Nurse (RN)	Associate's or Bachelor's Degree	\$93,600
Occupational Therapist	Master's Degree	\$98,300
Physical Therapist	Doctoral Degree	\$101,000

# Health Science



Students that successfully complete the Essentials of Healthcare course will also earn credit for the Science course Anatomy/ Physiology as an embedded credit. The grade earned in Essentials will be the same grade for Anatomy/Physiology. Careers in the Therapeutic Services pathway focus primarily on improving the health of the patient over time. Health professionals in this pathway work directly with patients and may provide care, treatment, counseling, and health education information. National labor market information indicates that eight of the top twenty fastest-growing occupations are in the Health Science industry. As roles of careers in Therapeutic Services change, professionals in this pathway will find increased opportunities to work independently. Additionally, an increasing number of career opportunities are available outside of the traditional hospital setting. Most Health Science occupations require additional education after high school and require appropriate certification and/or licensing. Workers in the Healthcare industry must have a solid background in math, science, communications, and technical skills, be knowledgeable in their subject area, communicate effectively, and inspire trust and confidence. Rapid job growth is expected in hospital outpatient facilities, such as ambulatory surgical centers, rehabilitation centers, and chemotherapy providers. Growth is also expected in nursing care facilities and in-home health care. RNs with a bachelor's degree have better job prospects in supervisory and managerial positions than those with either an associate degree or a diploma. The pay scale increases as students specialize to nurse practitioner, nurse anesthetist and clinical nurse specialist.

## Therapeutic - Patient Care Courses

- Intro to Healthcare
- Essentials of Healthcare
- Patient Care Fundamentals

## Therapeutic - Sports Medicine Courses

- Intro to Healthcare
- Essentials of Healthcare
- Sports Medicine

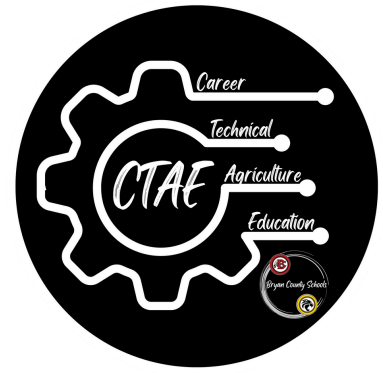
## *Career Possibilities:*

Certified Nursing Assistant (CNA), Licensed Practical Nurse (LPN), Registered Nurse (RN), Critical Care Nurse, Medical Assistant, Home Health Aide, Respiratory Therapist, Surgical Technologist, Medical Laboratory Technician, Athletic Trainer, Exercise Physiologist, Physical Therapy Assistant, Occupational Therapy Assistant, Fitness Trainer, Pediatric Nurse, Family and General Physician, Clinical Nurse Specialist, Nursing Instructor/Professor

Occupations	Education Needed	Median Salary
Certified Nursing Assistant (CNA)	HS Diploma + Certification	\$36,500
Medical Assistant	Postsecondary Certificate	\$40,500
Surgical Technologist	Postsecondary Certificate	\$49,700
Medical Laboratory Technician	Associate's Degree	\$51,200
Licensed Practical Nurse (LPN)	Postsecondary Certificate	\$51,800
Radiologic Technologist	Associate's Degree	\$75,000
Registered Nurse (RN)	Associate's or Bachelor's	\$93,600



# Hospitality & Tourism



A career in culinary arts involves more than simply cooking. Many job opportunities exist in this field, from executive chefs to part-time food service workers. Chefs, cooks, and food preparation workers prepare, season, and cook a wide range of foods in a variety of restaurants and other food service establishments. Food service managers are responsible for the daily operations of restaurants and other establishments that prepare and serve meals and beverages to customers. Most fast-food or short-order cooks and food preparation workers require little education or training since most skills are learned on the job. Executive chefs and head cooks who work in fine-dining restaurants require many years of training and experience. They may receive training through post-secondary vocational programs, independent cooking schools, professional culinary institutes or 2 or 4-year degree programs in hospitality or culinary arts. Many restaurant and food service management positions, particularly self-service and fast-food, are filled by promoting experienced food and beverage preparation and service workers. Many national or regional restaurant chains recruit management trainees from 2 and 4-year college hospitality management programs which require internships and real-life experience to graduate. Important characteristics for those interested in culinary arts include working well as part of a team, working efficiently, personal cleanliness, self-discipline, and initiative. Job openings for chefs, cooks, food preparation workers and food service managers are expected to be plentiful through 2030. However, competition will be keen for jobs in the top kitchens of higher-end restaurants. Employment growth will be spurred by increases in population, household income, and leisure time that will allow people to dine out and take more vacations.

## Culinary Arts Courses

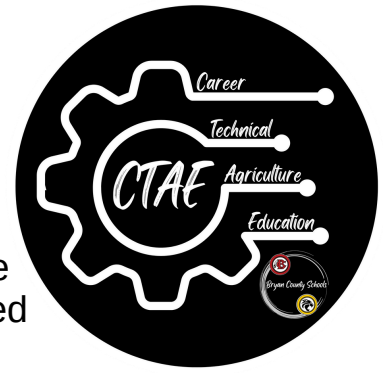
- Intro to Culinary Arts
- Culinary Arts I
- Culinary Arts II

## *Career Possibilities:*

Baker, Barista, Chef, Cook, Food Service Manager, Meeting, Convention & Event Planner, Waiter & Waitress, Lodging Manager, Food Prep Worker, First-Line Supervisor, of Food Prep and Serving Worker

Occupations	Education Needed	Median Salary
Baker	High School Diploma	\$25,600
Meeting, Convention, & Event Planner	Bachelor's Degree	\$48,300
Chef and Head Cook	Associates Degree	\$48,900
Food Service Manager	Some Postsecondary Courses	\$49,900

# Manufacturing



Manufacturing professionals are the skilled minds and hands behind the products, systems, and machinery that drive modern life. From advanced robotics to precision tools, these individuals turn raw materials into the innovative goods we rely on every day—cars, medical devices, electronics, and more. As automation and smart technologies advance, careers in manufacturing and mechatronics are becoming increasingly high-tech and in demand. Students in this cluster gain hands-on experience with mechanical, electrical, and computer-controlled systems, preparing them for modern manufacturing environments. Career opportunities include machine operation, industrial maintenance, robotics, and systems integration. Entry-level roles may require certifications or associate degrees, while advanced positions often call for specialized training. This pathway is ideal for problem-solvers and hands-on learners. Numerous industries in the Bryan County region—automotive, logistics, defense, and more—reflect strong workforce demand now and well into the future. Manufacturing is also a nontraditional field for women, offering rewarding, high-paying careers that help shape the world around us.

## Manufacturing Courses

- Foundations of Manufacturing and Materials Science
- Robotics & Automated Systems
- Production Enterprises

## Mechatronics Courses

- Intro to Mechatronics - DC Theory, Pneumatic Systems & Programmable Logic Controllers
- AC Theory, Electric Motors & Hydraulic Systems
- Semiconductors, Mechanical Systems, and Pump & Piping Systems

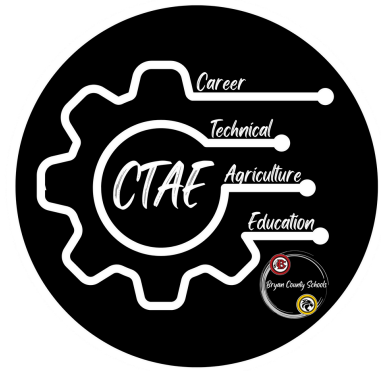
### *Career Possibilities:*

Machinist, Industrial Machinery Mechanic, Mechatronics Technician, CNC Machine Operator, CNC Programmer, Industrial Engineering Technician, Electrical Engineering Technician, Electromechanical Technician, Welding Technician, Tool and Die Maker, Quality Control Inspector, Robotics Technician, Production Planner, Manufacturing Engineer, Structural Metal Fabricator, Electronics Assembler, Industrial Production Manager, Architectural & Engineering Manager

Occupations	Education Needed	Median Salary
Welding Technician	High School Diploma	\$45,000
CNC Machine Operator	High School Diploma	\$62,000
Industrial Engineering Tech	Associate's Degree	\$62,300
Industrial Production Manager	Bachelor's Degree	\$107,600
Architectural/Engineering Manager	Bachelor's Degree	\$159,900



# Science, Technology, Engineering, & Mathematics



Professionals in the engineering and technology field continue to revolutionize the way we live. They design, produce, operate, and maintain a variety of equipment and services we use in our everyday lives. The rapidly changing engineering and technology field requires a broad educational background and a lifelong commitment to learning new and specialized information. Overall job opportunities in engineering and technology are expected to be good but will vary by specialty. Technology and technology related employment will continue to increase as technology changes and new technology is invented. Engineers may work in design and development, testing, production, or maintenance. Almost all entry-level engineering jobs require at least a bachelor's degree, and most engineers specialize in a certain field. Those interested in an occupation in the engineering field should be creative, inquisitive, analytical and detail oriented. Engineering is considered a nontraditional field for women; therefore, it is important that female students investigate different engineering opportunities where salaries are higher than in many traditional occupations for females.

## Engineering & Technology Courses

- Foundations of Engineering & Technology
- Engineering Concepts
- Engineering Applications

### *Career Possibilities:*

Engineer, Industrial Engineering Technician, Avionics Technician, Engineering Technologist, Civil Drafter, Cost Estimator, Mapping Technician, Electrical & Electronics Drafter, Electronic Technician, Quality Control Systems Management, Electrical Engineer, Aerospace Engineer

Occupations	Education Needed	Median Salary
Industrial Engineering Technician	Associates Degree	\$64,800
Electrical Engineering Tech	Associate's Degree	\$77,200
Avionics Technician	Associates Degree	\$81,400
Quality Control Systems Manager	Bachelor's Degree	\$107,600
Electrical Engineer	Bachelor's Degree	\$107,900
Aerospace Engineer	Bachelor's Degree	\$130,700

