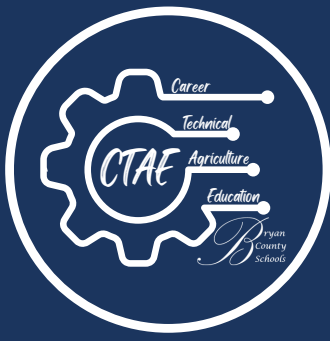


2023-2024

# CTAE PATHWAYS

Bryan County Schools





# Explore Your Opportunities!

98% Graduation Rate among BCS Pathway Completers

## Current Pathway Offerings

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

- Agriculture Mechanic Systems
- Plants & Landscape Systems

### **Arts, A/V Technology & Communication**

- Audio-Video Technology and Film I
- Digital Media & Film
- Graphic Design

### **Business Management & Administration**

- Business & Technology
- Entrepreneurship
- Human Resources Management

### **Education & Training**

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

### **Finance**

- Financial Services

### **Government & Public Administration**

- JROTC - Army

### **Health Science**

- Emergency Medical Responder
- Therapeutic Services/Patient Care

### **Hospitality & Tourism**

- Culinary Arts

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

- Engineering & Technology

### **Work-Based Learning**

- Work-Based Job Opportunities
- Internship Job Opportunities

## Future Pathway Offerings

Construction

Distribution and Logistics

Electrical

Automotive Technology (w/ EV Component)

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

### Course of Study

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

## Plant and Landscape Systems

### Course of Study

- Basic Agricultural Science
- General Horticulture & Plant Science
- Nursery and Landscape

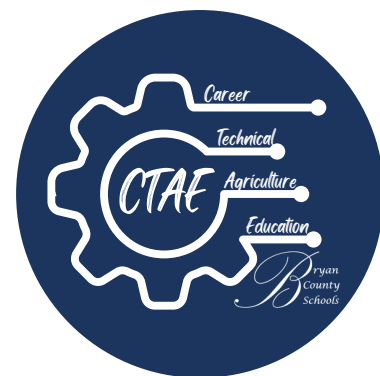
### *Career Possibilities:*

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 plant and landscape systems offers a variety of job opportunities in the fields of education, research, golf and sports turf, landscape design, parks and gardens, public service, production management, and sales and marketing. Some jobs available include landscape designer, greenhouse manager, golf course superintendent, plant breeder, florist, agricultural chemical researcher, and garden center owner.

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

# Arts, A/V 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

### Course of Study

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

## Digital Media & Film

### Course of Study

- Digital Media & Film I
- Digital Media & Film II
- Digital Media & Film III

## Graphic Design

### Course of Study

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

### *Career Possibilities:*

Set & Exhibit Designers, Sound Engineering Technician, Graphic Designer, Technical Directors/Managers, Artists & Related Workers, Photographers, Camera & Photographic, Equipment Repairers, Desktop Publishers, Commercial & Industrial Designers, Multimedia Artist & Animators, Equipment Repairers, Computer Programmers, Print Binding & Finishing Workers, Printing Press Operators, Proofreaders & Copy Markers, Artist, Illustrators, Motion Graphic Artists, Web Developer, Multimedia Producer, Video Game Designer, Directors-Stage, Television, & Film

Occupation Specialities	Education Needed	Median Wage
Production Artist	Bachelor's Degree	\$90,000
Graphic Designer	Bachelor's Degree	\$57,000
Art Director	Bachelor's Degree	\$102,000
Videographer	High School Diploma	\$43,200
Audio/Video Technician	Postsecondary Certification	\$47,600
Film & Video Editor	Bachelor's Degree	\$60,300
Broadcast Technicians	Associate's Degree	\$44,790

# 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

### Course of Study

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

## Entrepreneurship

### Course of Study

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

## Human Resources Management

### Course of Study

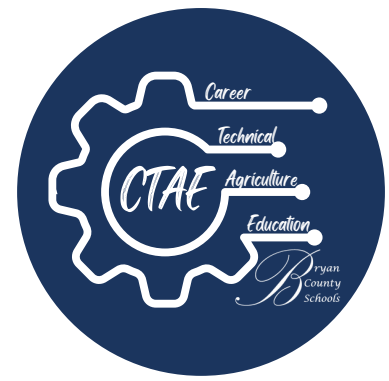
- Intro to Business & Technology
- Legal Environment of Business
- Human Resources Principles

### *Career Possibilities:*

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, Public Relations Specialist

Occupation Specialities	Education Needed	Median Wage
Public Relations Manager	Bachelor's Degree	\$119,000
Business Intelligence Analysts	Bachelor's Degree	\$87,000
Loan Officer	Bachelor's Degree	\$75,000

# Education & Training



Preschool, kindergarten, and elementary school teachers play a vital role in the development of children. They introduce children to math, language, science, and social studies. They use games, music, artwork, films, books, computers, and other tools to teach basic skills. Teachers design classroom presentations to meet students' needs and abilities. They also work with students individually. They are responsible for planning, evaluating, and assigning lesson plans, preparing, administering, grading tests, and maintaining discipline. 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 ethnic, racial, and religious backgrounds. With growing minority populations in most parts of the U.S., teachers must work effectively with a diverse student population. 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 must also continually update their skills, so they can instruct and use the latest technology in the classroom. Most states do not require licensure of teachers in private schools. Licensing requirements for preschool teachers also vary by state. Georgia Pre-K teachers must meet current credential requirements outlined in Georgia's Pre-K Providers' Operating Guidelines and attend annual Pre-K training. Requirements for public preschool teachers are usually more stringent than those for private preschool teachers. Most job openings will result from replacing the large number of teachers expected to retire over the next several years. Job prospects should be better in inner cities and rural areas than in suburban districts.

## Early Childhood Education

### Course of Study

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

## Teaching as a Profession

### Course of Study

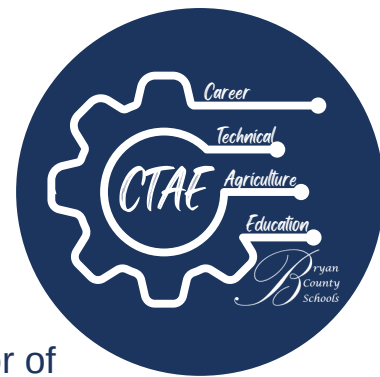
- Examining the Teaching Profession
- Contemporary Issues in Education
- Teaching as a Profession Practicum

### *Career Possibilities:*

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

Occupation Specialities	Education Needed	Median Wage
Childcare Worker	High School Diploma	\$33,000
Paraprofessional	Associates Degree	\$30,000
Teacher	Bachelor's Degree	\$56,000

# Finance



The Finance Career Cluster prepares students for careers in financial and investment planning, banking, insurance and business financial management. Finance career opportunities are available in every sector of the economy and require skill in organization, time management, customer service and communication. Students in finance learn and practice skills that prepare them for diverse post-high school education and training opportunities, from apprenticeships and two-year college programs to four-year college and graduate programs. Workers in this pathway provide services to policyholders and insurance companies. Jobs in this pathway involve managing other people's money and helping other people reach their financial goals. This pathway is involved in directing companies' investment policies and preparing financial documents for regulatory authorities. Occupations in this pathway include loan officer, teller, compliance officer, credit analyst, new accounts clerk, internal auditor, bill collector, mortgage underwriter, customer service representative, and commercial loan specialist.

## Financial Services

### Course of Study

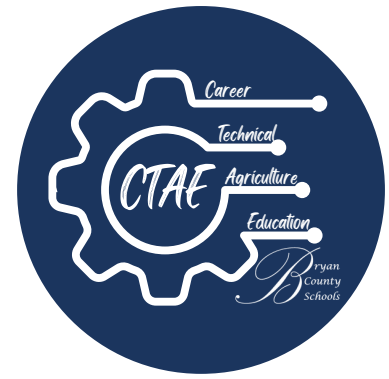
- Intro to Business & Technology
- Financial Literacy
- Banking, Investing, & Insurance

### *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

Occupation Specialities	Education Needed	Median Wage
Claims Examiners, Property and Casualty Insurance	Bachelor's Degree	\$61,958
Investment Underwriters	Bachelor's Degree	\$65,577
Financial Examiners	Bachelor's Degree	\$83,390
Insurance Claims Clerks	Some postsecondary, no degree required	\$43,201

# 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

### Course of Study

- 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

Occupation Specialities	Education Needed	Median Wage
General Enlisted	High School Diploma	\$27,650
Commissioned Officer	Bachelor's Degree	\$66,400
Nuclear Reactor Operator	High School Diploma	\$86,000

# 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. The primary focus of the Emergency Medical Responder is to initiate lifesaving care to critical patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide lifesaving interventions while awaiting additional Emergency Medical Services (EMS) response and to assist higher level personnel at the scene and during transport. Emergency Medical Responders perform basic interventions with minimal equipment. Emergency Medical Responders include Emergency Medical Technicians (EMTs) and paramedics that care for the sick or injured in emergency medical settings. EMTs and paramedics respond to emergency calls, perform medical services and transport patients to medical facilities. Work is performed both indoors and outdoors and in all types of weather. The work is physically strenuous and can be stressful, sometimes involving life-or-death situations and patients who are suffering. All EMTs and paramedics must complete a formal training program. All states require EMTs and paramedics to be licensed, but requirements vary by state. Employment of EMTs and paramedics is expected to grow by 33 percent from 2014 to 2024, much faster than the average for all occupations.

## Emergency Medical Responder

### Course of Study

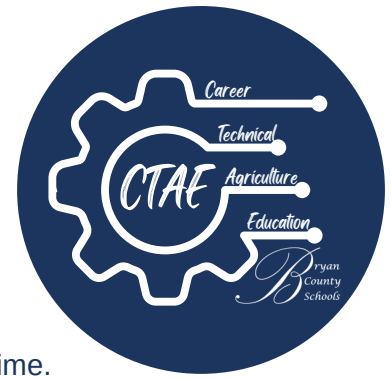
- Intro to Healthcare Science
- Essentials of Healthcare
- Emergency Medical Responder

### *Career Possibilities:*

Emergency Medical Technicians & Paramedics, Police, Fire, & Ambulance Dispatchers, Medical Equipment Prepares, Ambulance Drivers & Attendants, Except EMTs, Registered Nurses, Radiologic Technicians, Medical & Health Services Managers, Respiratory Therapists

Occupation Specialities	Education Needed	Median Wage
Ambulance Drivers & Attendants	High School Diploma	\$27,291
Police, Fire & Ambulance Dispatchers	High School Diploma	\$30,714
Emergency Medical Treatments & Paramedics	Post-Secondary Certificate	\$32,386
High Skill Medical Assistant	Post-Secondary Certificate	\$29,665

# 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

### Course of Study

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

## Therapeutic - Sports Medicine

### Course of Study

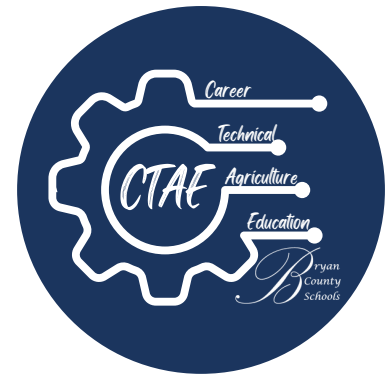
- Intro to Healthcare
- Essentials of Healthcare
- Sports Medicine

### *Career Possibilities:*

Certified Nursing Assistants (CNA), Licensed Practical Nurses (LPN), Registered Nurse (RN), Specialized Nursing, Athletic Trainers, Home Health Aides, Anesthesiologist Assistants, Medical Assistants, Critical Care Nurse, Clinical Nurse Specialist, Nursing Instructor/Professor, Pediatrician, Internist, Family and General Physician

Occupation Specialities	Education Needed	Median Wage
Certified Nursing Assistant (CNA)	Certification	\$24,680
Healthcare Social Workers	Advanced Degree	\$48,640
Medical & Health Services Managers	Bachelor's Degree	\$104,956
Physician Assistant	Master's Degree	\$120,000
Registered Nurse (RN)	Bachelor's Degree	\$71,000

# 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 2024. 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

### Course of Study

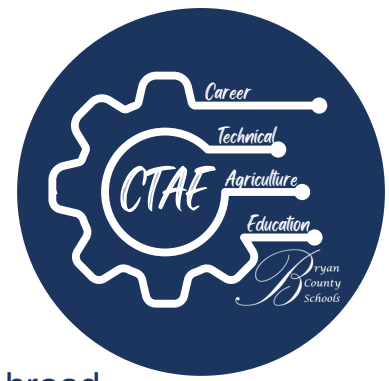
- Intro to Culinary Arts
- Culinary Arts I
- Culinary Arts II

### *Career Possibilities:*

Bakers, Baristas, Chefs, Cooks, Food Service Managers, Meeting, Convention & Event Planners, Waiters & Waitresses, Lodging Managers, Food Prep Workers, First-Line Supervisors, of Food Prep and Serving Workers

Occupation Specialities	Education Needed	Median Wage
Food Service Managers	Some Postsecondary Courses	\$49,872
Chefs and Head Cooks	Associates Degree	\$48,943
Meeting, Convention, & Event Planners	Bachelor's Degree	\$48,251
Bakers	High School Diploma	\$25,603

# 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

### Course of Study

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

### *Career Possibilities:*

Engineer, Engineering Technologists, Civil Drafters, Cost Estimators, Mapping Technicians, Electrical & Electronics Drafters, Electronic Technician, Quality Control Systems Management

Occupation Specialities	Education Needed	Median Wage
Avionics Technicians	Associates Degree	\$65,440
Industrial Engineering Technicians	Associates Degree	\$61,920
Electrical Engineer	Bachelor's Degree	\$98,430
Aerospace Engineers	Bachelor's Degree	\$111,200