

# CTAE PATHWAY GUIDE

## EAST FORSYTH HIGH SCHOOL



8910 Jot Em Down Rd., Gainesville, GA 30506 | [www.forsyth.k12.ga.us/efhs](http://www.forsyth.k12.ga.us/efhs)

### A/V Technology and Film



**A/V TECHNOLOGY AND FILM** students will design, manufacture, operate and/or repair audio visual equipment, create presentations of sound, video, and data in a variety of formats, gather information, prepare broadcasts, build sets, and operate equipment used to record and transmit programs and/or motion pictures, and operate sound mixing and/or video editing equipment.

#### PATHWAY COURSES

Audio and Video Technology and Film I  
Audio and Video Technology and Film II  
Audio and Video Technology and Film III

#### CAREER CHOICES

Audio and Video Equipment Technician  
Broadcast News Analyst  
Broadcast Technician  
Camera Operator  
Control Room Technician  
Editor  
Journalist  
Radio and Television Announcer  
Reporter  
Sound Technician  
Station Manager

### Architecture Drawing and Design



**ARCHITECTURE/DRAFTING AND DESIGN** students will learn about safety, geometric construction, fundamentals of computer-aided drafting, and multi-view drawings. They will also learn drafting techniques through the study of geometric construction and the basic terminology, concepts, and principles of architectural design. The pathway also places emphasis on the design process, site plans, electrical plans, and plumbing plans.

#### PATHWAY COURSES

Introduction to Drafting and Design  
Architectural Drawing and Design I  
Architectural Drawing and Design II

#### CAREER CHOICES

Architect  
Architectural Engineer  
Building Inspector  
Civil Engineer  
Drafter  
Electrical Engineer  
Environmental Engineer  
Landscape Designer  
Mechanical Drafter  
Surveying and Mapping Technician  
Urban Planner

### Computer Science



**COMPUTER SCIENCE** students will prepare for entry-level, technical, and professional IT careers, including the design, development, implementation, and maintenance of computer systems and software. Students will also gain knowledge of computer operating systems, programming languages, and gain knowledge of required cutting-edge technologies. Students will build a solid understanding and foundation of computer science which emphasis on computational thinking practices: connecting computing, developing computational artifacts, abstracting, analyzing problems and artifacts, communicating, and collaborating.

#### PATHWAY COURSES

Introduction to Software Technology  
Computer Science Principles or AP CS Principles  
AP Computer Science A

#### CAREER CHOICES

Computer Hardware Engineer  
Computer Network Architect  
Computer Programmer  
Computer System Analyst  
Database Administrator  
Information Security Analyst  
Information Systems Manager  
Network Administrator  
Software Developer  
Software Engineer  
Video Game Designer

**INDUSTRY CREDENTIAL (Credential of Value): Microsoft Technology Associate (MTA): Software Development Fundamentals**

**For more education on each pathway, download a complete Program of Study:**

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### Construction/Carpentry



**CONSTRUCTION/CARPENTRY** students will learn the basic knowledge to function safely on or around a construction site and provide them a solid foundation in carpentry skills and knowledge. The pathway introduces students to four construction craft areas and allows them to gain Level One Industry Certification in one of the craft areas. Students will learn the history and traditions of carpentry, masonry, plumbing, and electrical craft trades and the care and safe use of hand and power tools as they relate to each trade.

#### PATHWAY COURSES

Industry Fundamentals and Occupational Safety  
Introduction to Construction  
Carpentry I

#### CAREER CHOICES

Building Inspector  
Construction Inspector  
Construction Manager  
Electrician  
Home Improvement Associate  
Mason  
Pipefitter  
Plumber  
Sheet Metal Worker  
Welder

**INDUSTRY CREDENTIAL (Credential of Value): National Center for Construction Education and Research (NCCER) Carpentry Level 1 & OSHA 10**

### Culinary Arts



**CULINARY ARTS** students will complete a variety of skills required by the restaurant and food industry such as knife skills, cooking techniques, menu planning, food purchasing and costing, food safety and sanitation, and front of the house service. The pathway allows students to develop in-depth knowledge and hands-on skill mastery of culinary arts and allows them to refine hands-on production of the classic fundamentals in the commercial kitchen.

#### PATHWAY COURSES

Introduction to Culinary Arts  
Culinary Arts I  
Culinary Arts II

#### CAREER CHOICES

Cake Designer  
Caterer  
Chef and Head Cook  
Dining Room Management  
Food and Beverage Director  
Food Services Manager  
Food Stylist and Photographer  
Food Writer and Critic  
Kitchen Manager  
Pastry Chef  
Personal Chef  
Restaurant Entrepreneur

**INDUSTRY CREDENTIAL (Credential of Value): American Culinary Federation (ACFEF) Secondary Culinary Graduate**

### Early Childhood Education



**EARLY CHILDHOOD EDUCATION** students will learn the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children. The pathway provides a history of education, licensing and accreditation requirements, and foundations of basic observation practices and applications. Early childhood care, education, and development issues are also addressed and include health, safety, and nutrition education.

#### PATHWAY COURSES

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

#### CAREER CHOICES

After-School Program Supervisor  
Child Care Administrator  
Child Care Director and Owner  
Child Care Supervisor  
Education Administrator  
Educational and Teacher Aide  
Elementary School Teacher  
Kindergarten Teacher  
Preschool Teacher  
Recreation Attendant  
Special Education Teacher

**INDUSTRY CREDENTIAL (Credential of Value): Early Care & Education: Entry Level Child Care Training Certification**

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### Education as a Profession



**EDUCATION AS A PROFESSION** students will learn to plan, manage, and provide education and training services, and related learning support services such as administration, teaching/training, administrative support, and professional support services. They will be engaged in observations, interactions, and analyses of critical and contemporary educational issues and investigate issues influencing the social and political contexts of educational settings in Georgia and the United States and actively examines the teaching profession from multiple vantage points both within and outside of the school.

#### PATHWAY COURSES

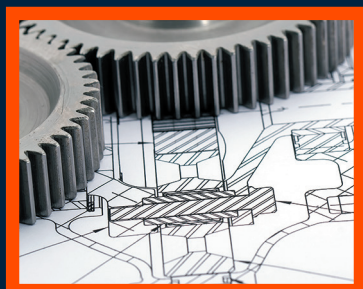
Education as a Profession I  
Education as a Profession II  
Education as a Profession Practicum

#### CAREER CHOICES

Adult Educator  
After-School Program Supervisor  
Coach  
Education Evaluator  
Educational and Teacher Aide  
K-12 School Teacher  
Media Specialist  
Post-Secondary Vocational Education  
Recreation Attendant  
School Administration  
Special Education Teacher

**INDUSTRY CREDENTIAL (Credential of Value): NOCTI Teaching as a Profession (College EDUC 2110 Credit in Georgia)**

### Engineering and Technology



**ENGINEERING AND TECHNOLOGY** students will combine hands-on projects and rigorous curriculum to be prepared for challenging postsecondary engineering and technology problems; and build solid technical writing, comprehension, calculation, problem-solving, and technical skills. Students are encouraged to take relevant math and science courses, such as advanced algebra, chemistry, calculus, geometry, trigonometry, physics, design, and engineering concepts.

#### PATHWAY COURSES

Foundations of Engineering and Technology  
Engineering Concepts  
Engineering Applications

#### CAREER CHOICES

Civil Engineer  
Designer  
Drafter  
Electrical Engineer  
Industrial Engineer  
Machinist  
Manufacturing  
Materials Engineer  
Mechanical Engineer  
Quality Control Inspector

**INDUSTRY CREDENTIAL (Credential of Value): NOCTI Engineering and OSHA 10**

### Entrepreneurship



**ENTREPRENEURSHIP** students focus on recognizing a business opportunity, starting a business, operating and maintaining a business. Students will align business goals that focus on planning, organizing, coordinating, and controlling the resources needed to produce and provide goods and/or services that lead to owning and operating a small business. They will learn statutes and regulations affecting businesses, families, and individuals.

#### PATHWAY COURSES

Introduction to Business and Technology  
Legal Environment of Business  
Entrepreneurship

#### CAREER CHOICES

Advertising and Promotion Manager  
Business Manager  
Chief Executive Officer  
Claims Adjuster or Examiner  
Computer Systems Analyst  
Cost Estimator  
Database Administrator  
Financial Analyst or Manager  
Network and Computer System  
Paralegal and Legal Assistant  
Personal Financial Advisor  
Training and Development Manager

**INDUSTRY CREDENTIAL (Credential of Value): NOCTI General Management**

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### Heavy Equipment Operations



**HEAVY EQUIPMENT OPERATIONS** Students will gain foundational knowledge in construction including carpentry, plumbing, electrical, welding and HVAC. The pathway will focus and build on the concepts related to earthmoving as well as reading and using blueprints and specifications related to grading and grade calculations. The pathway provides specific knowledge and skills in operating and maintaining utility tractors and heavy equipment.

#### PATHWAY COURSES

Industry Fundamentals and Occupational Safety  
Introduction to Heavy Equipment  
Heavy Equipment Operations I

#### CAREER CHOICES

Articulated Dump Truck Operator  
Backhoe and Dozer Operator  
Forklift Operator  
Heavy Equipment Mechanic  
Heavy Equipment Operator  
Heavy Equipment Service Technician  
HVAC  
Pipe Layer  
Plumbing  
Welding

**INDUSTRY CREDENTIAL (Credential of Value): Not Yet Approved by the Georgia Department of Education**

### Interiors, Fashion, and Textiles



**INTERIORS, FASHION, AND TEXTILES** students will learn the fundamentals of design and the interior design profession, including the fascinating world of how textiles are woven into the fabric of everyday life. The pathway will allow students to advance skills in the selection, purchase, design, care, and construction of textile products and about textiles for apparel, interior furnishings, and industrial applications.

#### PATHWAY COURSES

Foundations of Interior Design  
Fundamentals of Fashion  
Fundamentals of Textile Science

#### CAREER CHOICES

Art and Design Worker  
Fashion Designer  
Interior Designer  
Personal Shopper  
Purchasing Manager  
Retail Merchandiser  
Sales Executive  
Textile, Apparel and Furnishing Worker  
Visual Merchandiser  
Wholesale and Retail Buyer

**INDUSTRY CREDENTIAL (Credential of Value): MBA Standard Marketing Program of Study/End of Program HS Exam**

### Marketing and Management



**MARKETING AND MANAGEMENT** students will focus on managing the processes responsible for identifying, anticipating, and satisfying customer requirements in a manner that is profitable for the business. Student skills include management and entrepreneurship, marketing, buying and merchandising, marketing communications and promotion, professional sales, marketing information management and research, channel management, global marketing, and internet/online marketing.

#### PATHWAY COURSES

Marketing Principles  
Marketing and Entrepreneurship  
Marketing Management

#### CAREER CHOICES

Advertising Account Executive  
Communications Specialist  
Customer Service Representative  
Entertainment Marketer  
Insurance Agent  
Logistics Specialist  
Market Research Analyst  
Marketing Specialist  
Media Buyer  
Product Development Management  
Public Relations Specialist

**INDUSTRY CREDENTIAL (Credential of Value): MBA Standard Marketing Program of Study/End of Program HS Exam**

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