

CTAE PATHWAY GUIDE

FORSYTH CENTRAL HIGH SCHOOL

131 Almon C. Hill Dr, Cumming, GA 30040 | www.forsyth.k12.ga.us/fchs



Automotive Technology



AUTOMOTIVE TECHNOLOGY students will learn the basic skills needed to gain employment as an entry level automotive technician. Students will be exposed to courses in automotive preventative maintenance, brakes, steering and suspension, electrical systems, engine repair, engine performance, automatic transmission, manual transmission and differential & automotive HVAC. The hours completed in this course are aligned with ASE standards and are a base for the entry-level technician.

PATHWAY COURSES

General Automotive Technology 1, 2 and 3
Advanced Automotive Technology 4, 5 and 6
Automotive Service Technology Internship 1, 2 and 3

CAREER CHOICES

Auto Manufacturer Sales or Service
Auto or Body Technician
Automotive Engineer
Automotive Mechanist
Automotive Sales
Body Shop Manager
Dealership or Shop Owner
Parts Professional
Quality Control Technician
Service Advisor
Specialized Technician Teacher
Technician (ASE Certified)

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-TDL-Automobile-Service-Technology.pdf>

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

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-AAVTC-Audio-Video-Tech-Film.pdf>

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, as well as knowledge of computer operating systems, programming languages, and software development required of 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 Digital Technology
Computer Science Principles or AP CS Principles
AP Computer Science

CAREER CHOICES

Computer Hardware Engineers
Computer Network Architects
Computer Programmers
Computer System Analysts
Database Administrators
Information Security Analysts
Information Systems Managers
Network Administrators
Software Developers
Software Engineers
Video Game Designers

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Information-Technology-Computer-Science.pdf>

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Cosmetology



COSMETOLOGY students will learn both fundamental theory and practices of the personal care professions. Emphasis will be placed on professional practices and safety. Areas addressed include state rules and regulations, professional image, bacteriology, decontamination and infection control, chemistry fundamentals, safety, Hazardous Duty Standards Act compliance, and anatomy and physiology. Students will master shampooing, permanent waving, haircutting, basic skin care, and make-up application while maintaining safety and sanitation in the workplace set forth by OSHA standards.

PATHWAY COURSES

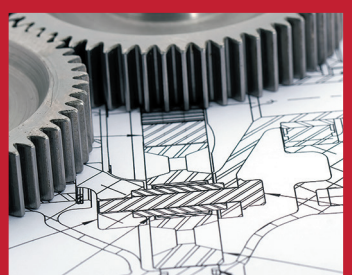
Introduction to Personal Care Services
Cosmetology Services II
Cosmetology Services III

CAREER CHOICES

Barber Stylist
Chemical Texture Specialist
Color Specialist Chemist
Cosmetologist
Cutting Specialist
Esthetician
Hair Color Specialist
Hairstylist
Make-up Artist
Nail Technicians
Salon Owner
Shampoo Tech
Wig Stylist

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Human-Services-Personal-Care-Cosmetology.pdf>

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

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-STEM-Engineering-Technology.pdf>

Healthcare-Biotechnology



HEALTHCARE - BIOTECHNOLOGY students will gain a broad understanding of the fundamentals of biotechnology and the impact on society. The knowledge and skills in this pathway provide a basic overview of current trends and careers in biotechnology, with an emphasis on basic laboratory skills, along with the business, regulatory, and ethical aspects of biotechnology. Additional applications and techniques in biotechnology that expand and increase the student's comprehension of how biotechnology utilizes living systems to create products and enhance lives are also an important part of the pathway.

PATHWAY COURSES

Introduction to Healthcare Science
Essentials of Biotechnology
Applications of Biotechnology

CAREER CHOICES

Biological or Medical Illustrator
Crime Lab Technician
Emergency Medical Technician
Field Biologist or Ecologist
Forensic Service Technician
Laboratory Technician
Licensed Practical Nurse
Medical Writer
Mortician
Nutritionist
Pediatric Nurse
Phlebotomist
Radiology Technician

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Health-Science-Biotechnology-Research-Development.pdf>

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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

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Marketing-Marketing-Management.pdf>

Marketing Communications and Promotions



MARKETING COMMUNICATIONS AND PROMOTIONS students will focus on the performance of key responsibilities required in a retail environment and develop skills in pricing, visual merchandising, advertising, special promotions, professional sales, and customer service. They will also better understand the communication aspects of business in relation to customer/consumer relationships. Students develop knowledge and skills in advertising, direct marketing, public relations, sales promotions, and digital marketing communications.

PATHWAY COURSES

Marketing Principles
Promotion and Professional Sales
Marketing Communications Essentials

CAREER CHOICES

Advertising and Promotions Manager
Advertising Sales Agents
Green Marketers
Market Research Analysts
Marketing Managers
Marketing Strategists
Public Relations Specialists
Sales Managers
Sales Representatives

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Marketing-Marketing-Communications-Promotion.pdf>

Nutrition and Food



NUTRITION AND FOOD students focus of the pathway is centered on healthy food and lifestyle choices. Students will investigate the interrelationship of food, nutrition and wellness to promote good health. The most common nutritional concerns, their relationship to food choices and health status and strategies to enhance well-being at each stage of the lifecycle are also emphasized, and students will evaluate the effects of processing, preparation, and storage on the quality, safety, wholesomeness, and nutritive value of foods.

PATHWAY COURSES

Food, Nutrition, and Wellness
Food for Life
Food Science

CAREER CHOICES

Chef and Head Cook
Dietician/Nutritionist
Food Inspector
Food Scientist and Technologist
Food Services Manager
Geriatric Food Designer
Health Educator

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Human-Services-Food-Nutrition.pdf>

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Sports and Entertainment Marketing



SPORTS AND ENTERTAINMENT MARKETING students will learn about the major segments of the sports and entertainment industry and the social and economic impact the industry has on the local, state, national, and global economies. The products and services offered to consumers and the impact of marketing on these products and services are examined. Students will also have opportunities to develop managerial and analytical skills and deepen their knowledge in sports/entertainment marketing.

PATHWAY COURSES

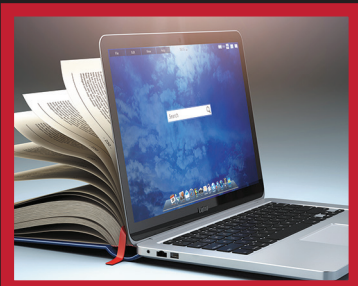
Marketing Principles
Introduction to Sports and Entertainment Marketing
Advanced Sports and Entertainment Marketing

CAREER CHOICES

Agent
Communications Specialist
Customer Service Representative
Demonstrator and Product Promoter
Entertainment Marketer
Entrepreneur
Market Research Analyst
Marketing Specialist
Media Buyer
Product Development Management
Public Relations Specialist

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Hospitality-Tourism-Sports-Entertainment-Marketing.pdf>

Teaching as a Profession



TEACHING 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

Examining the Teaching Profession
Contemporary Issues in Education
Teaching as a Profession Internship

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

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Education-Training-Teaching-as-a-Profession.pdf>

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Veterinary Science



VETERINARY SCIENCE students will learn the major areas of scientific agricultural production and research and learn problem solving lessons, introductory skills, and knowledge in agricultural science and agri-related technologies. This pathway also covers the basics of animal care. Topics covered include disease, parasites, feeding, shelter, grooming, and general animal care.

PATHWAY COURSES

Basic Agricultural Science
Animal Science and Biotechnology
Veterinary Science

CAREER CHOICES

Animal Physical Therapist
Animal Welfare Specialist
Animal Care Specialist
Artificial Insemination Technician
Breed Association Sales/Promotion
Cell Culture Specialist
Companion Animal Breeder
Companion Animal Nutrition Specialist
Dairy Unit Herdsman/Manager
Embryo Transfer Technician
Veterinarian
Veterinary Tech

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/AFNR-POS-Veterinary-Science.pdf>

Web Development



WEB DEVELOPMENT students will learn to develop and design responsive web sites through coding, testing, debugging and implementation of web-based services. This pathway will also allow students to learn about content management systems, client side languages, server side languages, and database concepts. It is designed to give students foundational knowledge of "front-end" and "back-end" development to address the presentation and data access layers of web site development.

PATHWAY COURSES

Introduction to Digital Technology
Computer Science Principles
Web Development

CAREER CHOICES

Computer Specialist
Database Developer
Internet Specialist
Multimedia Developer
Network Analyst
Network Engineer
Programmer
Video Game Developer
Web Developer
Webmaster
Website Designer
Software Trainer

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/POS-Information-Technology-Web-Digital-Design.pdf>