

CTAE PATHWAY GUIDE

SOUTH FORSYTH HIGH SCHOOL



585 Peachtree Pkwy, Cumming, GA 30041 | www.forsyth.k12.ga.us/sfhs

Advanced Accounting



ADVANCED ACCOUNTING students will learn how to make decisions about planning, organizing, and allocating resources using accounting procedures. Performing accounting activities for sole proprietorships and corporations following Generally-Accepted Accounting Procedures are also included. Students analyze business transactions and financial statements, perform payroll, and evaluate the effects of transactions on the economic health of a business. They will also learn about uncollectible accounts, plant assets, inventory, notes payable and receivable, prepaid and accrued expenses, and more.

PATHWAY COURSES

Introduction to Business and Technology
Principles of Accounting I
Principles of Accounting II

CAREER CHOICES

Bank Teller and Manager
Chief Financial Officer
Controller
Corporate Finance Professional
Credit Analyst
Financial Counselor
Financial Manager
Insurance Agent and Broker
Investment Banker
Loan Officer
Personal Financial Advisor

INDUSTRY CREDENTIAL (Credential of Value): QuickBooks Certification

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

INDUSTRY CREDENTIAL (Credential of Value): Adobe Certified Associate

Baking and Pastry



BAKING AND PASTRY students will complete a variety of skills required by industry such as baking terminology, the proper use of tools and equipment, formula conversions, and the functions of various ingredients. Topics include the creation of breads, pastries, cookies, and other delectable desserts. A significant focus is placed on mastering the fundamentals of dough preparation and basic decorating skills.

PATHWAY COURSES

Introduction to Culinary Arts
Baking and Pastry I
Baking and Pastry II

CAREER CHOICES

Bakery Consultant
Bakery Production Manager
Cake Decorator
Entrepreneur
Food Truck Owner
Merchandiser
Pastry Blogger
Pastry Chef

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

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

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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 Engineers
 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

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

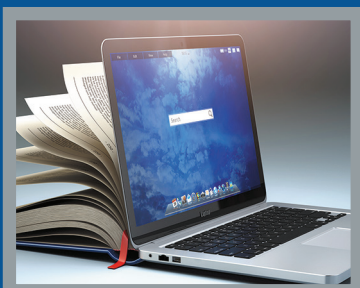
Introduction to Culinary Arts
 Culinary Arts I
 Culinary Arts II

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

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)

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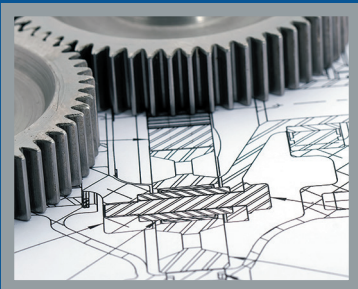
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Engineering and Technology



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

Fashion, Merchandising, and Retail Management



FASHION, MERCHANDISING, AND RETAIL MANAGEMENT students will be introduced to the retail industry including the fundamentals of fashion marketing, key marketing concepts essential to every business, types of businesses involved in the industry, and an array of career opportunities. Students will develop skills in such areas as fashion economics, marketing segmentation and target marketing, product selection and buying, and inventory system. The pathway will also help them develop skills necessary for managing pricing, visual merchandising, advertising, special promotions, professional sales, and customer service.

PATHWAY COURSES

Marketing Principles
Fashion, Merchandising, and Retailing Essentials
Advanced Fashion, Merchandising, and Retailing

CAREER CHOICES

Advertising and Promotions Manager
Brand Manager
Entrepreneurs/Company Owner
Fashion Designer
General Merchandise Manager
Merchandise Analyst
Manufacturer's Sales Representative
Online Merchant
Product Developer
Retail Buyer
Visual Merchandiser
Wholesale and Retail Buyer

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

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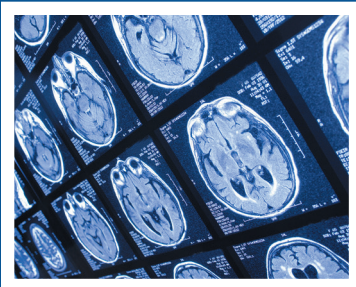
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Healthcare - Biotechnology Research and Development



HEALTHCARE - BIOTECHNOLOGY RESEARCH AND DEVELOPMENT 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

INDUSTRY CREDENTIAL (Credential of Value): Precision Biotechnology

Human Resources Management



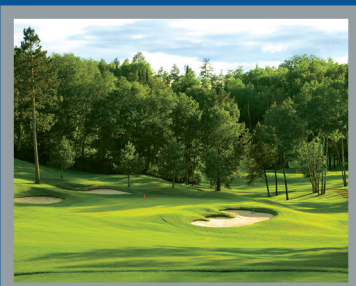
HUMAN RESOURCE MANAGEMENT students will learn about statutes and regulations affecting businesses, families, and individuals. Students will also get an overview of business law while concentrating on the legal aspects of business ownership and management. Students will also analyze the primary functions of human resources management which include recruitment, selection, training, development, compensation, and evaluation. The pathway is designed to equip students with operational knowledge of hiring, managing, and firing employees.

PATHWAY COURSES
Introduction to Business and Technology
Legal Environment of Business
Human Resources Principles

CAREER CHOICES
Compensation and Benefits Manager
Employee Training Specialist
Human Resources Assistant
Human Resources Manager
Human Resources Specialist
Job Analysis Specialist
Training and Development Manager

INDUSTRY CREDENTIAL (Credential of Value): NOCTI Human Resources Management

Landscape Management Systems



LANDSCAPE MANAGEMENT SYSTEMS students will learn the major areas of scientific agricultural production and research; presents problem solving lessons and introductory skills and knowledge in agricultural science and agri-related technologies. The pathway also teaches the procedures to establish, manage, and maintain ornamental or recreational turf, to prepare and maintain athletic fields and playing surfaces, and to produce and market turf.

PATHWAY COURSES
Basic Agriculture Science
General Horticulture and Plant Science
Turf Production and Management

CAREER CHOICES
Agricultural Science Professor
Agriculture Technician
Arborist
Estate Caretaker
Forest Nursery Supervisor
Golf Course Management
Greenhouse Technician
Landscape Architect
Landscape and Nursery Worker
Master Gardener
Natural Resource Manager
Pesticide Handler

INDUSTRY CREDENTIAL (Credential of Value): Precision Landscape Management

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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
 Promotional and Digital Marketing
 Integrated Marketing Communications

CAREER CHOICES
 Advertising and Promotions Manager
 Advertising Sales Agent
 Green Marketer
 Market Research Analyst
 Marketing Manager
 Marketing Strategist
 Public Relations Specialist
 Sales Manager
 Sales Representative

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

Marketing and Management



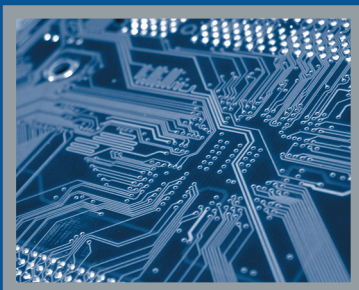
MARKETING AND MANAGEMENT students will focus on managing the processes responsible for identifying, anticipating, and satisfying customer requirements in a manner that is profitable for the business. Student skills include management and entrepreneurship, marketing, buying and merchandising, marketing 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

Programming



PROGRAMMING students will learn essential skills involved in the design, development, implementation, and maintenance of computer systems and software, requiring knowledge of computer operating systems, programming languages, and software development. Students are able to strategize, design, and develop games and mobile and desktop applications that can be produced in the real world and learn about life-cycles of project development and use models to develop applications. Attention will be placed on how user interfaces affect the usability and effectiveness of a game or an application.

PATHWAY COURSES
 Introduction to Software Technology
 Computer Science Principles or AP CS Principles
 Programming, Apps, Games and Society

CAREER CHOICES
 Actuary
 Computer Programmer
 Computer Scientist
 Computer Systems Analyst
 Computing Systems Manager
 Computer Software Engineer
 Database Administrator
 Information Systems Manager
 Mathematician

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

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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

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

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