

CTAE PATHWAY GUIDE

NORTH FORSYTH HIGH SCHOOL



3635 Coal Mountain Drive, Cumming, GA 30028 | www.forsyth.k12.ga.us/nfhs

Computer Science



COMPUTER SCIENCE PATHWAY Careers in Computer Science lead individuals to create, modify, and test codes - all while inventing and designing new approaches to computing technology and finding innovative uses for existing technology. Career area focus requires solving complex problems in computing for business, medicine, science, and other fields.

PATHWAY COURSES

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

CAREER CHOICES

Computer Programmers
Computer Hardware Engineers
Computer Network Architects
Computer System Analysts
Database Administrators
Information Security Analysts
Software Developers
Software Engineers
Software Testers

INDUSTRY CREDENTIAL (Credential of Value): NOCTI: Information Technology (IT) Specialist - Software Development

Education as a Profession



EDUCATION AS A PROFESSION PATHWAY Educational services is the second largest industry which includes a variety of institutions that offer academic education or career and technical instruction. This includes elementary, middle and secondary schools, universities, colleges, professional schools, community or junior colleges and career and technical institutes. The overall demand for educational services will increase as growing emphasis on improving education along with retirements will create large numbers of job openings.

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 Education
Recreation Attendant
School Administration
Special Education Teacher

INDUSTRY CREDENTIAL (Credential of Value): NOCTI: Teaching as a Profession

Engineering and Technology



ENGINEERING AND TECHNOLOGY PATHWAY The major focus of the Introduction to Engineering Design (IED) course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. It also allows students to develop strategies to enable and direct their own learning.

PATHWAY COURSES

Foundations of Engineering and Technology
Engineering Concepts
Engineering Applications

CAREER CHOICES

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

INDUSTRY CREDENTIAL (Credential of Value): NOCTI: Engineering

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

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Film Production



FILM PRODUCTION PATHWAY This pathway prepares students with introductory technical skill and employment. The pathway will also prepare students to participate in multiple class-created film production team simulations and film projects to develop a professional film portfolio. Topics covered may include terminology, safety on a set, production teams, equipment, script writing, production, editing, post-production, and professional ethics.

PATHWAY COURSES

Audio and Video Technology and Film
Introduction to Film Production
Film Production Applications

CAREER CHOICES

Assistant Director
Audio and Video Equipment Tech
Broadcast Technician
Camera Operators
Grip
Lighting Technician
Photographer
Reporter
Script Supervisor
Set and Exhibit Designer
Sound Engineering Technician
Station Manager
Technical Directors/Manager

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

Healthcare- Public Health



HEALTHCARE - PUBLIC HEALTH PATHWAY This pathway provides students fundamental healthcare skills and knowledge, communication skills, and technology skills. Students will be exposed to human growth and development, patient and family health, medical terminology, wellness, and preventative care. Students will also learn about the physiology of each body system, understanding of common diseases, disorders and emerging diseases (prevention, diagnosis and treatment), and the pathophysiology of diseases and disorders.

PATHWAY COURSES

Introduction to Healthcare Science
Essentials of Healthcare
Applications of Public Health

CAREER CHOICES

Community Health Worker
Emergency Management
Environmentalist
Epidemiologist
Health Educator
Nursing
Physician
Public Health Worker

INDUSTRY CREDENTIAL (Credential of Value): NCHSE

Healthcare- Sports Medicine



HEALTHCARE - SPORTS MEDICINE PATHWAY

Sports Medicine is a branch of Health Science devoted to musculoskeletal disorders that alter the functional ability of the patient. Careers in this industry focus on improvement of ability to perform life tasks through the combined use of physical training (exercise, movement, and modification of activities), medications, adaptive equipment, orthotics (braces), and prosthesis devices. Careers in rehabilitation focus on helping people return to independence and self-reliance.

PATHWAY COURSES

Introduction to Healthcare Science
Essentials of Healthcare
Sports Medicine

CAREER CHOICES

Athletic Trainer
Chiropractor
Massage Therapist
Occupational Therapist
Orthopedic Physician
Osteopathic Physician
Physical Therapy Assistant
Physician's Assistant
Podiatric Physician
Radiologist
Sports Medicine Physician

INDUSTRY CREDENTIAL (Credential of Value): Athletic Training Student Aide

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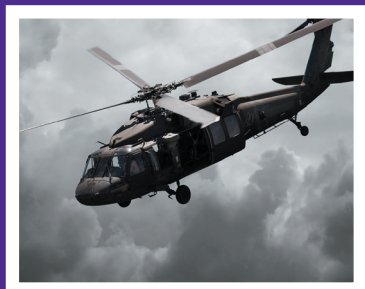
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JROTC MARINES



JROTC MARINES PATHWAY This pathway lays the foundations for the pathway courses by teaching the basics of leadership, citizenship, personal growth, appearance and responsibility, general Marine Corps knowledge, drill, and physical training. Courses provide elevated instruction in the basics of leadership, citizenship, personal growth, appearance and responsibility, and additional instruction and practical application general military subjects.

PATHWAY COURSES

MCJROTC Leadership Education I/II
MCJROTC Leadership Education III/IV
MCJROTC Leadership Education V/VI
MCJROTC Leadership Education VII/VIII

CAREER CHOICES

Administration
Air Traffic Controller
Aviation Ordnance
Broadcast Specialist
Computer Specialist
Criminal Investigation
Flight Crew
Intelligence
Military Police
Missile Fire Control Operator
Naval Aviation (Pilot)
Transportation Management

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

Marketing and Management



MARKETING AND MANAGEMENT PATHWAY Students develop knowledge and skills in the foundational areas of marketing (economics, human relations and business basics) and the functional areas of marketing (product and service planning, marketing information management, purchasing and pricing, selling and promotion, risk management, financing and distribution/logistics), as well as international marketing, management and entrepreneurship.

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
Public Relations Specialist
Real Estate Agent

INDUSTRY CREDENTIAL (Credential of Value): Standard Marketing Program of Study

Marketing Communications and Promotions



MARKETING COMMUNICATIONS AND PROMOTIONS

PATHWAY Marketing jobs are found in almost every industry, and the number of jobs available is expected to increase faster than average. College graduates with related experience, a high level of creativity and strong communication skills will have the best job opportunities. Technology is changing the way we communicate and promote goods and services with potential customers.

PATHWAY COURSES

Marketing Principles
Promotional and Digital Marketing
Integrated Marketing Communications

CAREER CHOICES

Advertising and Promotions Manager
Brand Ambassador
Green Marketer
Market Research Analyst
Marketing Manager
Marketing Strategist
Public Relations Specialist
Sales Manager
Sales Representative

INDUSTRY CREDENTIAL (Credential of Value): Standard Marketing Program of Study

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Nutrition and Food Science



NUTRITION AND FOOD SCIENCE PATHWAY

Employment in this field is expected to grow faster than average as a result of the increasing emphasis on disease prevention through improved dietary habits. A growing and aging population will increase the demand for meals and nutritional counseling agencies in hospitals, residential care facilities, schools, prisons, community health programs, and home health care.

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
- Health Inspector
- Nutritionist

INDUSTRY CREDENTIAL (Credential of Value): ServSafe: Food Safety Handler Certification

Veterinary Science



VETERINARY SCIENCE PATHWAY This pathway covers the basics of animal care. Topics covered include disease, parasites, feeding, shelter, grooming, and general animal care. College preparatory students benefit from the course as an elective if they plan to enter college and pursue a degree in the veterinary profession. This course allows students entering the workforce after graduating high school to develop entry-level skills to become employed and to continue their education on the job.

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 Technician

INDUSTRY CREDENTIAL (Credential of Value): Veterinary Assistant

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