



DENMARK HIGH SCHOOL

645 Mullinax Rd, Alpharetta, GA 30004
470-533-2521 | www.forsyth.k12.ga.us/dhs

For more education on each pathway, download a complete Program of Study: <https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx>

CLUSTER	PATHWAY	DETAIL	COURSE 1	COURSE 2	COURSE 3	COURSE 4	CAREER CHOICES
AGRICULTURE, FOOD AND NATURAL RESOURCES CLUSTER	Companion Animal Pathway	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. Students will also learn skills and concepts involved with the care and management of companion animals.	Basic Agriculture Science	Animal Science and Biotechnology	Small Animal Care	Internship Forsyth	<ul style="list-style-type: none"> Agricultural Animal Animal Breeder Animal Care and Service Worker Animal Scientist <ul style="list-style-type: none"> Biological Technician Ranch Manager Veterinarian Veterinary Assistants/Technician
	Veterinary Science Pathway	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.	Basic Agriculture Science	Animal Science and Biotechnology	Veterinary Science	Internship Forsyth	<ul style="list-style-type: none"> Animal Physical Therapist Animal Welfare/Care Specialist Cell Culture Specialist Companion Animal Breeder <ul style="list-style-type: none"> Dairy Unit Herdsman/Manager Embryo Transfer Technician Veterinarian Veterinary Tech
BUSINESS MANAGEMENT AND ADMINISTRATION CLUSTER	Entrepreneurship Pathway	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.	Introduction to Business and Technology	Legal Environment of Business	Entrepreneurship	Internship Forsyth	<ul style="list-style-type: none"> Advertising and Promotion Business Manager Chief Executive Officer Computer Systems Analyst <ul style="list-style-type: none"> Cost Estimator Database Administrator Paralegal and Legal Assistant Personal Financial Advisor
EDUCATION AND TRAINING CLUSTER	Education as a Profession Pathway	Students will learn to plan, manage, and provide education and training in student learning environments. Students will also learn about administrative roles, teacher training, administrative support, and professional learning services. Students will engage in observations, interactions, and analysis of critical and contemporary educational issues.	Education as a Profession I	Education as a Profession II	Education as a Profession Practicum	Internship Forsyth	<ul style="list-style-type: none"> Adult Educator After-School Program Supervisor Educational and Teacher Aide K-12 School Teacher <ul style="list-style-type: none"> Media Specialist Post-Secondary Vocational School Administration Special Education Teacher
FINANCE CLUSTER	Financial Services Pathway	Students will 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.	Introduction to Business and Technology	Financial Literacy	Banking, Investing and Insurance	Internship Forsyth	<ul style="list-style-type: none"> Accountant Auditor Business Teacher Claims Adjuster <ul style="list-style-type: none"> Financial Project Specialist Financial Planner Insurance Sales Agent Sales and Service
HEALTH SCIENCE CLUSTER	Allied Health and Medicine Pathway	Students are exposed to the healthcare industry and jobs offered in a variety of establishments: hospitals, nursing and residential care facilities, physicians, dental, and other health practitioners offices, home health care services, outpatient care centers, ambulatory health care services and medical and diagnostic laboratories.	Introduction to Healthcare Science	Essentials of Healthcare	Allied Health and Medicine	Internship Forsyth	<ul style="list-style-type: none"> Clinical Laboratory Technician Dental Hygienist Medical Doctor Medical Laboratory Technician <ul style="list-style-type: none"> Paramedic Pharmacist Physical Therapist Radiologic Technologist
HOSPITALITY AND TOURISM CLUSTER	Culinary Arts Pathway	Students will complete a variety of skills required by the industry such as knife skills, cooking techniques, menu planning, food purchasing and costs, food safety and sanitation, and front of the house service. The pathway allows students to develop knowledge and hands-on skill mastery of culinary arts in the commercial kitchen.	Introduction to Culinary Arts	Culinary Arts I	Culinary Arts II	Internship Forsyth	<ul style="list-style-type: none"> Caterer Chef and Head Cook Food Stylist and Photographer Food Writer and Critic <ul style="list-style-type: none"> Kitchen Manager Pastry Chef Personal Chef Restaurant Entrepreneur
	Sports and Entertainment Marketing Pathway	Students will learn about the major segments of the sports and entertainment industry and the social and economic impact the industry has on 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.	Marketing Principles	Introduction to Sports and Entertainment Marketing	Advanced Sports and Entertainment Marketing	Internship Forsyth	<ul style="list-style-type: none"> Agent Communications Specialist Customer Service Representative Entrepreneur <ul style="list-style-type: none"> Market Research Analyst Marketing Specialist Media Buyer Public Relations Specialist
INFORMATION TECHNOLOGY CLUSTER	Artificial Intelligence Pathway	Students study the simulation of intelligent behavior in computers. Artificial Intelligence sits at the intersection and synergy of critical components from a variety of fields including programming, data science, mathematical reasoning, creative problem solving, ethics, and applied experiences.	Foundations of Artificial Intelligence	Artificial Intelligence Concepts	Artificial Intelligence Applications	Internship Forsyth	<ul style="list-style-type: none"> Big Data Engineer/ Architect Business Intelligence Developer Computer Vision Engineer Data Scientist <ul style="list-style-type: none"> Machine Learning Engineer Researcher/Research Scientist Robotics Engineer Software/AI Engineer
	Cloud Computing Pathway	Students will develop an overall understanding of cloud computing, cloud concepts, core services, security, architecture, and support. Technical content includes designing, developing, and deploying a virtual private network, creating a cloud environment that is scalable, and demonstrating safe use of big data.	Introduction to Software Technology	Computer Science Principles or AP Computer Science Principles	Cloud Computing	Internship Forsyth	<ul style="list-style-type: none"> Software Engineer Cloud Engineer Data Engineer System Engineer <ul style="list-style-type: none"> Full Stack Developer Java Developer Systems Administrator .NET Developer
	Computer Science Pathway	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.	Introduction to Software Technology	Computer Science Principles or AP Computer Science Principles	AP Computer Science A	Internship Forsyth	<ul style="list-style-type: none"> Computer Hardware Engineer Computer Programmer Computer System Analyst Database Administrator <ul style="list-style-type: none"> Information Systems Manager Network Administrator Software Developers/Engineer Video Game Designer
MARKETING CLUSTER	Fashion, Merchandising and Retail Management Pathway	Students will be introduced 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.	Marketing Principles	Fashion, Merchandising, and Retailing Essentials	Advanced Fashion, Merchandising, and Retailing	Internship Forsyth	<ul style="list-style-type: none"> Brand Manager Entrepreneurs/Company Owner Fashion Designer General Merchandise Manager <ul style="list-style-type: none"> Online Merchant Product Developer Retail Buyer Visual Merchandiser
	Marketing and Management Pathway	Students will focus on developing skills in 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.	Marketing Principles	Marketing and Entrepreneurship	Marketing Management	Internship Forsyth	<ul style="list-style-type: none"> Advertising Account Executive Communications Specialist Customer Service Representative Entertainment Marketer <ul style="list-style-type: none"> Insurance Agent Marketing Specialist Media Buyer Public Relations Specialist
STEM CLUSTER	Engineering and Technology Pathway	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.	Foundations of Engineering and Technology	Engineering Concepts	Engineering Applications	Internship Forsyth	<ul style="list-style-type: none"> Civil Engineer Drafter Electrical Engineer Industrial Engineer <ul style="list-style-type: none"> Machinist Manufacturing Materials/Mechanical Engineer Quality Control Inspector