ALLIANCE ACADEMY FOR INNOVATION

1100 Lanier 400 Parkway, Cumming, GA 30040
470-695-7823 | www.forsyth.k12.ga.us/alliance

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	
ARTS, A/V TECHNOLOGY AND COMMUNICATIONS CLUSTER	Graphic Design Pathway	Students will learn processes involved in the technologies of printing, publishing, packaging, electronic imaging, and their allied industries. Students will also gain more experience in creative problem solving and the practical implementation of those solutions across multiple areas of graphic design and graphic communications.	Introduction to Graphics and Design	Graphic Design and Production	Advanced Graphic Design	Internship Forsyth	• Art Director • Creative Designer • Film and Video Editor • Graphic Designer	• Illustration • Multimedia Artist and Animator • Photography • 3D Animation
BUSINESS MANAGEMENT AND ADMINISTRATION CLUSTER	International Business Pathway	Provides students essentials for working in an international business environment, managing a business, and owning a business. Key concepts emphasized include global awareness, entrepreneurship, and cultural competency. Studies also include real, specific, historical cases from international businesses.	Introduction to International Business	Global Awareness and Cultural Competency	International Business Concepts	Internship Forsyth	• Economist • Foreign Exchange Trader • Logistics Manager • International Trade/Customs	• Foreign Service Officer • Trade Specialist • Import/Export Coordinator • International Accountant
EDUCATION AND TRAINING CLUSTER	Teaching 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 for educators. Students will also be engaged in observations, interactions, and analysis of critical and contemporary educational issues.	Examining the Teaching Profession	Contemporary Issues in Education	Teaching as a Profession Practicum	Internship Forsyth	• Adult Educator • After-School Program Supervisor • Educational and Teacher Aide • K-12 School Teacher	• Media Specialist • Post-Secondary Vocational • School Administration • Special Education Teacher
FINANCE CLUSTER	Finance Technologies (FinTech) Pathway	Students will explore what new financial technologies are emerging and how technological advances in data analytics are enabling innovation in the financial industry. Through this pathway, students examine new services and business models in various areas of banking, insurance, and financial asset management.	Introduction to Financial Technology	Financial Technologies and Services	Coding for FinTech	Internship Forsyth	• Account Manager • Analytics Specialist • Business Systems Analyst • Data Scientist	• Database Administrator • Email Marketing Specialist • NET Developer • Software Engineer/Developer
HEALTH SCIENCE CLUSTER	Diagnostic - Clinical Lab Pathway	Students will be provided career opportunities for persons with a strong interest in the initial phase of detecting health problems-the diagnostic phase. This phase includes procedures such as X-rays, fluoroscopies, sonograms, and clinical laboratory tests examining blood and other body fluids.	Introduction to Healthcare Science	Essentials of Healthcare	Clinical Lab I	Internship Forsyth	• Clinical Chemistry Technologist • Clinical Laboratory Technician • Immunology Technologist • Medical Lab Technologist	• Medical and Health Service • Medical Lab Assistants • Microbiology Technologist • Nuclear Medicine Technologist
	Emergency Medical Responder Pathway	Students will be provided initial stabilizing care to the sick or injured prior to the arrival of Emergency Medical Services Professionals (EMS) and to assist EMS personnel transporting patients. Areas of instruction include Responder Safety; Incident Command; Blood-borne Pathogen Training; Resuscitation and the use of Automatic External Defibrillators (AEDs).	Introduction to Healthcare Science	Essentials of Healthcare	Emergency Medical Responder	Internship Forsyth	• Emergency Nurse • EMT and Paramedic • Firefighter	• Licensed Practical Nurse • Paramedic Technologist • Registered Nurse
	Emergency Medical Technician Pathway	Students learn to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. EMTs perform interventions with the basic equipment typically found on an ambulance.	Introduction to Healthcare Science	Essentials of Healthcare	Emergency Medical Technician	Internship Forsyth	• Air Ambulance • Clinic • Critical Care Transport Unit • Fire Department	• Hospital Ambulance Service • Physician Practice • Public/Private Ambulance Service • Surgery Center
HOSPITALITY AND TOURISM CLUSTER	Hospitality, Recreation and Tourism	Students will learn about the basics of marketing and business in relation to the hospitality, recreation, and tourism industry in the U.S. and abroad. Students will study destination geography, world economies, and historical timelines related to major segments of the hospitality industry.	Marketing Principles	Hospitality, Recreation, and Tourism Essentials	Hospitality, Recreation, and Tourism Management	Internship Forsyth	• Catering Manager • Cruise Director • Hotel Management • International Tourism	• Social Media Marketer • Tourism Director • Travel Agent/Planner • Travel Blogger

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INFORMATION TECHNOLOGY CLUSTER	**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 CS Principles	AP Computer Science A	Internship Forsyth	• Computer Hardware Engineer • Computer Programmer • Computer System Analyst • Database Administrator	• Information Systems Managers • Network Administrator • Software Developers/Engineer • Video Game Designer
	Cybersecurity Pathway	Students will learn to understand, communicate, and adapt to a digital world as it impacts their personal life, society, and the business world. The pathway is designed to provide students the basic concepts and terminology of cybersecurity and for them to examine how the concept of security integrates into the importance of user involvement.	Introduction to Hardware Technology	Introduction to Cybersecurity	Advanced Cybersecurity	Internship Forsyth	• Network Support Specialist • Computer Operators • Computer Support Specialist • Computer System Administrator	• Computer Support Specialist • First-Line Supervisors of Office • Information Systems Manager • Network System Administrator
	Game Design Pathway	Students will gain an understanding of the fundamental principles used in game creation process. First, game genres and modes of play are explored in terms of the psychology of incentives, motivation to play, and social networking. Next, virtual characters and non-player characters are reviewed from concept drawing to 2D and 3D art.	Introduction to Software Technology	Computer Science Principles	Game Design: Animation and Simulation	Internship Forsyth	• Audio Engineer • Computer Game Designer • Computer Programmer • Information Systems Manager	• Multimedia Artists/Animators • Software Developer • Technology Support Specialist • Video Game Tester
LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY CLUSTER	**Fire Emergency Services/EMR Pathway**	Students will be prepared for exploring firefighting, emergency medical responder, and public safety communications. After completing this course, the student will be able to sit for the exam to certify as a Firefighter I per National Fire Protection Association (NFPA8) 1001, Standard for Fire Fighter Professional Qualifications.	Introduction to Law, Public Safety, Corrections and Security	Essentials of Fire and Emergency Services	Emergency Medical Responder	Internship Forsyth	• Forest Fire Inspector • Forest Fire Prevention Specialist • Private Detectives/Investigator • Fire Inspector	• Firefighter • First Line Prevention Worker • First Line Supervisor
	Law Enforcement/ Forensic Science Pathway	Students will examine the concepts of law related to citizens' rights and responsibilities; and students will receive instruction in critical skill areas including: communicating with diverse groups, conflict resolution, ethics, CERT, report writing, and terrorism. Students will learn investigative techniques and crime scene investigation skills using the scientific method.	Introduction to Law, Public Safety, Corrections and Security	Criminal Justice Essentials	Forensic Science and Criminal Investigation	Internship Forsyth	• Coroner • Detective • Evidence Technician • Forensic Investigator	• Forensic Pathologist • Forensic Psychologist • Medical Examiner • Special Agent
	Legal Services - Applications of Law Pathway	Students will be provided an overview of the judicial process and role in our constitutional system of government. Focuses are on substantive law, both criminal and civil law, as well as the application of the law. Students will learn the basic concepts of criminal law in order to analyze factual scenarios and apply criminal law to justify an appropriate criminal charge.	Introduction to Law, Public Safety, Corrections and Security	Essentials of Legal Services	Applications of Law	Internship Forsyth	• Attorney • Correction Officers & Jailer • Court Reporter • Criminal Investigator	• Information Security • Paralegals and Legal Assistans • Public Safety Communication • Security and Protective Service
MANUFACTURING CLUSTER	**Mechatronics Pathway**	Students will be introduced to direct current concepts and applications, pneumatic system fundamentals, and programmable logic controllers (PLCs). Topics include electrical laws and principles, magnetism, series, parallel, and simple combination DC circuits, pneumatic system principles and components, and PLC installation and programming.	Introduction to Mechatronics	AC Theory, Electric Motors, and Hydraulic Systems	Semiconductors, Mechanical Systems, and Pump and Piping Systems	Internship Forsyth	• Chemical Plant System Operator • Computer Support Specialist • Electrical/Electronics Repairer • Electronics Engineering Tech	• Industrial Engineer • Industrial Engineering Tech • Industrial Equipment Repairer • Industrial Machinery Mechanic
TRANSPORTATION, DISTRIBUTION AND LOGISTICS CLUSTER	**Flight Operations Pathway**	Students will gain knowledge in aviation history and regulations, the basic principles of flight, aerospace careers, factors influencing work systems, aerospace technologies, and basic aviation meteorology. This pathway enables the student to apply the basics of aircraft navigation and utilize efficient communication methods for safe aircraft operations.	Fundamental of Aerospace	Flight Operations I	Flight Operations II	Internship Forsyth	• Aerospace Engineer • Air Traffic Controller • Aircraft Cargo Handling • Specialists Aviation Safety	• Specialists Avionics Inspector • Commercial Pilot • Flight Attendant • Operations Technician
	Unmanned Aircraft Systems Pathway	Students are provided a foundation to earn a commercial license to pilot an unmanned aircraft system. Topics covered include the effects of weather on an unmanned aircraft, types and uses of unmanned aircraft, pre-flight planning and checks, FAA requirements, technology and remote instruction, radio communications, and more.	Fundamental of Aerospace	Flight Operations I	Unmanned Aircraft Systems	Internship Forsyth	• Unmanned Aircraft Vehicle (UAV) • Pilot Safety/Emergency Service • Surveyors/Mapping Technician • Television, Video, Film Camera	• Operators and Editor • Photographer • Delivery Service • Insurance and Claim Research