

CAREER PLANNER 2019-2020 FORSYTH COUNTY SCHOOLS





Preparing students for success after high school is an inherent component of Forsyth County Schools. Whether students plan to enter the workforce immediately or attend college after high school graduation, careful consideration of high school course options can impact their futures. To better prepare students for the demands of the 21st century economy and for post-secondary education, Forsyth County Schools has provided this planning guide for use by students and their parents.

Use this planning guide for the next four years, and use it to set career goals and plan for the world of future work. Go over the information in the guide together, and begin to have discussions concerning post high school plans and how you can reach the goals that you set. Bring this guide with you to each annual advisement appointment at your high school, and share with your advisor as you all work together to map out the next year's schedule of courses. Finally, mark your choices in the guide as you go through high school and as your career decisions possibly change and evolve.

This planning guide shows the clear connection between class work and future success, pointing out the relevance of academic learning in the classroom. It also provides information on a variety of occupations that differ in the scope of education and training required to obtain future employment.

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DISCLAIMER: The information contained within this book is as accurate as possible at the time of publication. Classes offered at each high school can change due to scheduling and allotment conflicts. This Career Pathways Planner is provided by the US DOE Carl Perkins Grant.

FORSYTH COUNTY SCHOOLS 2019-2020 Career Planner 2



FORSYTH COUNTY SCHOOL DISTRICT

1120 Dahlonega Highway Cumming, GA 30040 770.887.2461 www.forsyth.k12.ga.us

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PUBLIC NOTICE FORSYTH COUNTY SCHOOL DISTRICT

The Forsyth County School District offers the following career and technical education programs for all students regardless of race, color, national origin, including those with limited English proficiency, sex or disability in grades 9-12.

- Agriculture, Food, and Natural Resources
- Arts, Audio-Video Technology, and Communications
- Business, Management, and Administration
- Education and Training
- Energy
- Finance
- Government and Public Administration
- · Health Science
- · Hospitality and Tourism
- Human Services
- Information Technology
- · Law, Public Safety, Corrections, and Security
- Manufacturing
- Marketing
- · Science, Technology, Engineering, and Mathematics (STEM)
- Transportation, Distribution and Logistics

Persons seeking further information concerning the career and technical education offerings and specific pre-requisite criteria should contact:



Dr. Valery Lowe Director of College & Career Development 1100 Lanier 400 Parkway Cumming, GA 30040 vlowe@forsyth.k12.ga.us 770-887-2461 x 202247

The information provided in the Career Planner is subject to change as updates and/or requirements become final from the Georgia Department of Education, Forsyth County School Board (policy), and/or other agencies such as the Georgia Student Finance Commission.

FORSYTH COUNTY SCHOOL DISTRICT

NOTICE OF NON-DISCRIMINATION

The Forsyth County School District does not discriminate on the basis of race, color, religion, national origin, age, disability, or gender in employment decisions or educational programs and activities, including its athletic programs. Any student, employee, applicant for employment, parent or other individual who believes he or she has been subjected to harassment or discrimination by other students or employees of the school district based upon any of the factors listed above should promptly report the same to the principal of the school or the appropriate coordinator as listed below, who will implement the board's discriminatory complaints or harassment procedures. Students may also report harassment or discrimination to their school counselor. Equity coordinators for the school system are:

TITLE VI

Mr. Nathan Turner Students Dr. Cindy Salloum Personnel

TITLE IX

Mr. Nathan Turner Students Dr. Cindy Salloum Personnel

ADA and 504

Ms Sarah Taylor Students Dr. Cindy Salloum Personnel

SPORTS EQUITY

Dr. Cindy Salloum Personnel

Equity coordinators may be contacted at the Forsyth County Board of Education and Professional Development Center, 1120 Dahlonega Highway, Cumming, Georgia 30040, (770) 887-2461. Students and employees will not be subjected to retaliation for reporting such harassment or discrimination. A copy of the discriminatory complaints procedure under Forsyth County School District Policy GAAA/JAA (Equal Opportunity/Discriminatory Complaints) or under Policy IDFA (Gender Equity in Sports) is located in the school district policy manual that is available on the school system web site.



Career Pathways are state-approved career enhancement programs defined as a coherent, articulated sequence of rigorous academic and career-related courses starting in the ninth grade and leading to an associate degree, and/or an industry-recognized certificate or licensure, and/or a baccalaureate degree and beyond.

Career, Technical, and Agricultural Education (CTAE) provides students with the opportunity to select at least three sequenced courses in a career pathway.

CTAE CONCENTRATOR: A concentrator is defined as a student who takes at least three CTAE courses in a specific program area during their high school career.

PATHWAY COMPLETER: A pathway completer is a concentrator who completes the requirements for the Georgia Milestones Assessment System and also completes the requirements for CTAE pathway concentrators.

Selection of a pathway is based on self-awareness and the investigation of occupations plus related educational levels aligned with the pathway. Most high-demand, high-skilled, high-wage occupations in all concentrations still require education beyond high school.

Implementation of career pathways is a collaborative effort between the Forsyth County School District, the Georgia Department of Education, the Technical College System of Georgia and the University System of Georgia.



OVERVIEW OF CAREER CLUSTERS/PATHWAYS

- Georgia's 17 Career Cluster/Pathways provide a structure for organizing and delivering quality Career, Technical and Agricultural Education (CTAE) programs.
- Modeled after the National Career Clusters configuration utilized by most of the United States, Georgia's 17 Career Cluster/Pathways Model represents approximately 96 career pathways to help students navigate their way to greater success in college and career.
- · As an organizing tool for curriculum design and instruction, the 17 Career Clusters provide essential knowledge and skills for the students' career pathways.
- · This model functions as a:
 - Useful guide in developing programs of study that bridge secondary and postsecondary curriculum.
 - Indicator of a range of career options for students' graduation plans of study.
 - · Method of allowing students to discover their interests and passions, empowering them to choose the educational pathway that may lead to success in high school, college and career.
- The 17 Career Cluster/Pathways encompass both secondary and postsecondary education and will strengthen and improve student transition from secondary to postsecondary education.





AGRICULTURE, FOOD AND NATURAL RESOURCES

Careers with common knowledge and skills related to production, processing, marketing, financing, distribution, and development of agricultural commodities and resources. These commodities include food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

Careers with common knowledge and skills related to designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

BUSINESS MANAGEMENT AND ADMINISTRATION

Careers with common knowledge and skills related to the preparation of students with computer skills for future college and career plans. Cluster skills mastered include planning, organizing, directing, and evaluating as well as owning and operating a successful business.

EDUCATION AND TRAINING

Careers with common knowledge and skills related to planning, managing, and providing education and training services as well as related learning support services.

Careers with common knowledge and skills in the designing, planning, maintaining, generating, transmission, and distribution of traditional and alternative energy.

FINANCE

Careers with common knowledge and skills related to money management, including planning, investing, and spending. Students will gain career development skills for the finance world with opportunities that expand beyond basic business skills into financial literacy, banking, investing, insurance, and risk management.

GOVERNMENT AND PUBLIC ADMINISTRATION

Careers with common knowledge and skills related to planning and performing of government management and administrative functions at local, state, and federal levels. Careers are available in national security, foreign service, revenue, and regulations.

HEALTH SCIENCE

Careers with common knowledge and skills related to planning, managing, and providing services in therapeutics, diagnostics, health informatics, support areas, and biotechnology research and development.

HOSPITALITY AND TOURISM

Careers with common knowledge and skills related to the management, marketing, and operations of restaurants, and other food services, lodging, attractions, recreation events, and travel related services.

HUMAN SERVICES

Careers with common knowledge and skills related to family and human needs such as nutrition and food science, counseling and mental health services, family and community services, personal care, and consumer services.

INFORMATION TECHNOLOGY

Careers with common knowledge and skills related to the preparation for careers that create, use, modify, and engage technology skills. Graphics, multimedia animation, web design, game and application development, networking, and computer repair are all possibilities.

LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY

Careers with common knowledge and skills related to employment in emergency and fire services, legal services, protective services, and homeland security.

MANUFACTURING

Careers with common knowledge and skills related to processing of materials into intermediate or final products and related professional and technical support activities, such as production control, maintenance, and process engineering.

MARKETING

Careers with common knowledge and skills related to the process of anticipating, managing, and satisfying consumers' demand for products, services, and ideas. The Marketing career cluster generates the strategy that underlies advertising and promotional techniques, business communication, and business development.

SCIENCE, TECHNOLOGY, ENGINEERING AND **MATHEMATICS (STEM)**

Careers with common knowledge and skills related to planning, managing, and providing scientific research and professional and technical services.

TRANSPORTATION DISTRIBUTION AND LOGISTICS

Careers with common knowledge and skills related to planning, managing, and moving people, materials, and goods by road, pipeline, air, rail, and water, and also includes other related professional and technical support services.



APPROVED CAREER, TECHNICAL AND AGRICULTURAL **EDUCATION EXPLORATORY PROGRAMS**

Middle School Agriculture

Exploring Agricultural Education (Grade 6) Exploring Agricultural Education (Grade 7)

Exploring Agricultural Education (Grade 8)

Middle School Business Management and Finance

Foundations of Business Administration (Grade 6) Foundations of Business Management (Grade 7) Foundations of Investing and Finance (Grade 8)

Middle School Career Development

Career Awareness (Grade 6) Career Discovery (Grade 7) Career Management (Grade 8)

Middle School Computer Science

Foundations of Secure Information Systems (Grade 6) Foundations of Computer Programming (Grade 7) Foundations of Interactive Design (Grade 8)

Middle School Engineering and Technology

Exploring Engineering and Technology (Grade 6) Invention and Innovation (Grade 7) Technological Systems (Grade 8)

Middle School Family and Consumer Science

Family and Consumer Science (Grade 6) Family and Consumer Science (Grade 7) Family and Consumer Science (Grade 8)

Middle School Healthcare Science

Health Diagnostics and Support Services (Grade 6) Healthcare IT and Biotechnology (Grade 7) Therapeutic Services and Application of Anatomy (Grade 8)

Middle School Communications

Broadcast and Graphic Communications (Grade 6) Introduction to Communications (Grade 7) Applications of Communications (Grade 8)

Middle School Transportation

Introduction to Ground, Air and Maritime Technology (Grade 6) Foundations of Aerospace, Ground and Maritime Transportation (Grade 7) Investigation into Aerospace, Ground and Maritime Transportation (Grade 8)

Middle School Marketing, Sales & Services

Basic Skills of Marketing (Grade 6) Exploring Marketing Education (Grade 7) Pathways in Marketing (Grade 8)

MIDDLE SCHOOL PERFORMANCE STANDARDS

Designed to meet the needs of young adolescents, middle schools bridge the gap between elementary and high school by providing students with an opportunity to learn in a safe, nurturing, and positive environment. According to the National Middle School Association (NMSA) characteristics of effective middle schools include courageous, collaborative leadership, a shared vision that guides decisions, high expectations for every member of the learning community, students and teachers engaged in active learning, and school community partnerships.

These characteristics are also found within the Career, Technical and Agricultural Education programs in Georgia. CTAE is making giant strides to bring middle school programs to new career readiness goals. The new curriculum includes national standards, CTAE standards and Georgia Performance Standards, in addition to career development activities allowing students to make the connection between class work and workforce.

Each Middle School CTAE Program area course includes essential and relevant performance standards for math, science, language arts, and social studies. Middle school CTAE courses also reinforce Reading Across the Content, Technical Writing standards, Entrepreneurship standards, and CTAE Foundation Skills. CTAE middle school courses feature rigorous performance standards that students master to help prepare them for choosing a high school career pathway that interests them.



Find Your Passion! Middle School Career Pathway Options



Junior Achievement Entrepreneurship &

Engineering &

Technology

Financial Literacy

Career Exploration:

Management

Business

& Finance

JICKERY CREEK

Middle School

SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Lambert High School Denmark High School North Forsyth High School Forsyth Academy South Forsyth High School Forsyth Central High School Forsyth Virtual Academy West Forsyth High School

TABLE OF CONTENTS

Parents and Students		2
Forsyth County School Dist	rict	3
What are Career Pathways?		4
Career Clusters		5
Middle School Performance	Standards	6
Find Your Passion! Middle S	School Career Pathway Options	7
Table of Contents		8-12
Georgia's Hot Careers to 20	026	13-14
Georgia's STEM Careers to	2026	15-16
CTAE Industry Certification		17-18
Nontraditional Occuptation	s and Resources	19
CTAE Fourth Science Optio	ns	20
CTAE Mock Interviews		21
GeorgiaBEST and Career Re	esearch	22-23
Empoyer Summit Survey		24
Finding a Job Through Job	Board	25
College and Career Develop	oment	26
Dual Enrollment		27
Workforce Forsyth		28
Forsyth County High Schoo	l Career Pathways	29-33
PATHWAYS	·	
AGRICULTURE		
	AGRICULTURE LEADERSHIP IN ANIMAL PRODUCTION PATHWAY	34
	Basic Agriculture Science	
	Animal Science Technology and Biotechnology Agribusiness Management and Leadership	
	AGRICULTURE LEADERSHIP IN HORTICULTURE PATHWAY	35
	Basic Agriculture Science and Technologies	
	General Horticulture and Plant Science Agribusiness Management and Leadership	
	COMPANION ANIMAL SYSTEMS PATHWAY	36
	Basic Agriculture Science	00
	Animal Science and Biotechnology Small Animal Care	
	ENVIRONMENTAL AGRICULTURE SYSTEMS PATHWAY	37
	Basic Agriculture Science	07
	Science and Stewardship Sustainable Agriculture	
	LANDSCAPE MANAGEMENT SYSTEMS PATHWAY	38
	Basic Agriculture Science	30
	General Horticulture and Plant Science	
	Turf Production and Management	
	VETERINARY SCIENCE PATHWAY Basic Agricultural Science	39
	Animal Science and Biotechnology	
	Veterinary Science	

SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Lambert High School **Denmark High School** North Forsyth High School Forsyth Academy South Forsyth High School Forsyth Central High School Forsyth Virtual Academy West Forsyth High School

TABLE OF CONTENTS

	AUDIO/VIDEO TECHNOLOGY AND FILM PATHWAY	40
	Audio and Video Technology and Film	
	Audio and Video Technology and Film II	
	Audio and Video Technology and Film III	
	ANIMATION AND DIGITAL MEDIA PATHWAY Introduction to Graphics and Design	4
	Principles and Concepts of Animation	
	Advanced Animation, Game and App Design	
	GRAPHIC DESIGN PATHWAY	42
	Introduction to Graphics and Design	
	Graphic Design and Production Advanced Graphic Design	
BUSINESS MANAGEM	ENT AND ADMINISTRATION	
	ENTREPRENEURSHIP PATHWAY	4;
	Introduction to Business and Technology	
	Legal Environment of Business	
	Entrepreneurship	
	HUMAN RESOURCES MANAGEMENT PATHWAY	4
	Introduction to Business and Technology	
	Legal Environment of Business Human Resources Principles	
EDUCATION AND TRAI	<u> </u>	
	TEACHING AS A PROFESSION PATHWAY	4!
	Examining the Teaching Profession	
	Contemporary Issues in Education	
	Teaching as a Profession Practicum	
ENERGY		
ENERGY		
ENERGY	ENERGY SYSTEMS PATHWAY	40
ENERGY	Foundations of Energy and Power Technologies	40
ENERGY	Foundations of Energy and Power Technologies Energy and Power: Technology	40
	Foundations of Energy and Power Technologies	4
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies	
FINANCE	Foundations of Energy and Power Technologies Energy and Power: Technology	
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY	
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY Introduction to Business and Technology	
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY Introduction to Business and Technology Principles of Accounting I Principles of Accounting II BUSINESS ACCOUNTING PATHWAY	4
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY Introduction to Business and Technology Principles of Accounting I Principles of Accounting II BUSINESS ACCOUNTING PATHWAY Introduction to Business and Technology	4:
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY Introduction to Business and Technology Principles of Accounting I Principles of Accounting II BUSINESS ACCOUNTING PATHWAY Introduction to Business and Technology Financial Literacy	4
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY Introduction to Business and Technology Principles of Accounting I Principles of Accounting II BUSINESS ACCOUNTING PATHWAY Introduction to Business and Technology Financial Literacy Principles of Accounting II	4
	Foundations of Energy and Power Technologies Energy and Power: Technology Appropriate and Alternative Energy Technologies ADVANCED ACCOUNTING PATHWAY Introduction to Business and Technology Principles of Accounting I Principles of Accounting II BUSINESS ACCOUNTING PATHWAY Introduction to Business and Technology Financial Literacy	4

Financial Literacy

Banking, Investing and Insurance

SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Lambert High School Denmark High School North Forsyth High School Forsyth Academy South Forsyth High School Forsyth Central High School Forsyth Virtual Academy West Forsyth High School

TABLE OF CONTENTS

•	JROTC MARINES PATHWAY MCJROTC Leadership Education I/II MCJROTC Leadership Education III/IV MCJROTC Leadership Education V/VI MCJROTC Leadership Education VII/VIII	50
HEALTH SCIENCE		
• •	BIOTECHNOLOGY RESEARCH AND DEVELOPMENT PATHWAY Introduction to Healthcare Science Essentials of Biotechnology Applications of Biotechnology Biotechnology Internship/Independent Research	51
•	DIAGNOSTIC SERVICES - PHLEBOTOMY PATHWAY Introduction to Healthcare Science Essentials of Healthcare Diagnostics Phlebotomy	52
	HEALTH INFORMATION TECHNOLOGY PATHWAY Introduction to Healthcare Science Essentials of Healthcare Information Technology Applications of Health Information Technology	53
	THERAPEUTIC SERVICES - EMERGENCY MEDICAL RESPONDER PATHWAY Introduction to Healthcare Science Essentials of Healthcare Science Emergency Medical Responder	54
•	THERAPEUTIC SERVICES - SPORTS MEDICINE PATHWAY Introduction to Healthcare Science Essentials of Healthcare Sports Medicine	55
HOSPITALITY AND TO	DURISM	
• • •	CULINARY ARTS PATHWAY Introduction to Culinary Arts Culinary Arts I Culinary Arts II	56
	HOSPITALITY, RECREATIONAL AND TOURISM PATHWAY Marketing Principles Hospitality, Recreation, and Tourism Essentials Hospitality, Recreation, and Tourism Management	57
• • • • • • •	SPORTS AND ENTERTAINMENT MARKETING PATHWAY Marketing Principles Introduction to Sports and Entertainment Marketing Advanced Sports and Entertainment Marketing	58
HUMAN SERVICES		
• ••	NUTRITION AND FOOD PATHWAY Food, Nutrition, and Wellness Food for Life Food Science	59
•	PERSONAL CARE SERVICES - COSMETOLOGY PATHWAY Introduction to Personal Care Services Cosmetology Services II Cosmetology Services III	60

SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Lambert High School Denmark High School North Forsyth High School Forsyth Academy South Forsyth High School Forsyth Central High School Forsyth Virtual Academy West Forsyth High School

TABLE OF CONTENTS

INFORMATION TECHNOLOGY

• •••••	COMPUTER SCIENCE PATHWAY Introduction to Digital Technology Computer Science Principles or AP Computer Science Principles AP Computer Science	61
•	CYBERSECURITY PATHWAY Introduction to Digital Technology Introduction of Cybersecurity Advanced Cybersecurity	62
•	GAMING DESIGN PATHWAY Introduction to Digital Technology Computer Science Principles Gaming Design: Animation and Simulation	63
•	INTERNET OF THINGS PATHWAY Introduction to Digital Technology Computer Science or Principles or AP Computer Science Principles Embedded Computing	64
• •	PROGRAMMING PATHWAY Introduction to Digital Technology Computer Science Principles Programming, Apps, Games and Society	65
• • •	WEB DEVELOPMENT PATHWAY Introduction to Digital Technology Computer Science Principles Web Development	66
LAW, PUBLIC SAFETY,	CORRECTIONS	
•	FIREFIGHTING PATHWAY Introduction to Law, Public Safety, Corrections and Security Essentials of Fire and Emergency Services Applications of Firefighting	67
	LAW ENFORCEMENT PATHWAY Introduction to Law, Public Safety, Corrections and Security Criminal Justice Essentials Criminal Investigations	68
	LEGAL SERVICES/APPLICATIONS OF LAW PATHWAY Introduction to Law, Public Safety, Corrections and Security Essentials of Legal Services Applications of Law	69
MANUFACTURING		
•	MANUFACTURING PATHWAY Introduction to Manufacturing and Materials Science Robotics and Automated Systems Production Enterprises	70
•	MECHATRONICS PATHWAY Introduction to Mechatronics-DC Theory, Pneumatic Systems and PLC AC Theory, Electrical Motors, and Hydraulic Systems Semiconductors Mechanical Sys, and Pump and Piping Systems	71

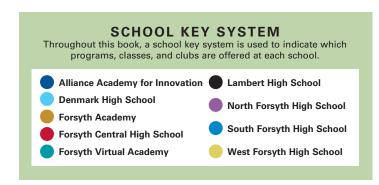


TABLE OF CONTENTS

_		FASHION, MERCHANDISING AND RETAIL MANAGEMENT PATHWAY	72
		Marketing Principles Fashion, Merchandising, and Retailing Essentials Advanced Fashion, Merchandising and Retailing	72
_		MARKETING AND MANAGEMENT PATHWAY Marketing Principles Marketing and Entrepreneurship Marketing Management	73
	•	COMMUNICATIONS AND PROMOTIONS PATHWAY Marketing Principles Marketing and Entrepreneurship Marketing Management	74
	STEM (SCIENCE, TECHN	IOLOGY, ENGINEERING AND MATHEMATICS)	
_	• • • • • • •	ENGINEERING AND TECHNOLOGY PATHWAY Foundations of Engineering and Technology Engineering Concepts Engineering Applications	75
	TRANSPORTATION, DIS	TRIBUTION AND LOGISTICS	
		AEROSPACE - AVIATION MAINTENANCE PATHWAY Fundamental of Aerospace Aviation Maintenance I Aviation Maintenance II	76
		AEROSPACE - FLIGHT OPERATIONS PATHWAY Fundamental of Aerospace Flight Operations I Flight Operations II	77
		DISTRIBUTION AND LOGISTICS PATHWAY Logistics Fundamentals Logistics Operations Materials Management	78
_	•	AUTOMOTIVE SERVICE TECHNOLOGY PATHWAY General Automotive Technology 1, 2, 3 Advanced Automotive Technology 4, 5, 6 Automotive Service Technology Internship 1, 2	79
SPECIA	ALTIES ••••		
	Internship Forsyth		80
	Mentorship Forsyth		81
	Career Development	Partner	82
	Dress for Success		83
	Career and Technical	Student Organizations (CTSO)	84-86
	Junior Achievement I	Discovery Center	87
_	College and Career Fa	air	88
_	Alliance Academy for	Innovation	89
_	University of North G	-	90
_	Lanier Technical Colle	-	91-92
	Find Your Passion! H	igh School Career Pathway Options	93

Fast job growth \checkmark Above average wages \checkmark At least 400 expected annual job openings

The careers in this chart have it all!

Skills and Abilities				/			Ski					/				Vork tiviti			/ Oh
advanced skills required	auire	d	1	1	1	1	1	ilitie /	/	1	1	1	2/5	1=1	/ /	-56	/ /	1 = 1 = 1	/ 🚡
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art jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.		died Thinking P	Service A. Decision Solving	Lies Oriente	Oral E Reading	Degla Spinston C.	Reas Marine	Write Steadings	Ass. Expness	Con Comprehen	Com. Training & Others	Control	Interacting to Sanization	Monitor Proces	P. Montes Acts H. Mants, S	C. Cress/Amales	This County County of Information	2017 Edition . C.	2016.2K
Doctoral or professional degree																			
Physical Therapists	0	•	•	•	•	•	•	•	•	•	•		•		•		•	\$86,800	410
Physicians & Surgeons, All Other	0	•	•	•			•	•		0	•		•			0	•	\$224,200	440
Postsecondary Teachers, All Other	•	•	•	•	•		•	•	0	•	•		•	3	•		•	\$77,200	490
Master's degree															ì				
Education Administrators, Elem & Sec	•	•	•	•	•		•	•	•	•	•	0	•		•	•	•	\$94,400	730
Educational, Guidance, School, & Voc Counselors			•	•				•		0				3			•	\$55,300	1,270
Healthcare Social Workers				•				•		•					0			\$51,200	580
Instructional Coordinators	•	•	•	•				•		•			•			0	•	\$57,600	700
Nurse Practitioners			•	•		•	•	•	•	•		0	•		•	•	•	\$101,900	420
Physician Assistants		•		•		0		•		0						0	•	\$100,800	400
Bachelor's degree										'n			n)	ì	Ü	ì			
Accountants & Auditors	•	•	П	•	•	0	•	•	Г	Г	•		•	Т	•	•	•	\$78,100	4,200
Administrative Services Managers			•	•	•			•	Г				•					\$93,900	880
Airline Pilots, Copilots, & Flight Engineers		•	•	•		•		•				0	•		•	•		\$92,300	800
Business Operations Specialists, All Other	0	•	0	•	•	•	•	•		0	•	0	•	. 0			•	\$71,800	3,650
Civil Engineers	•	•	0	•	•		•	•	Г	•		0		3			•	\$90,200	880
Coaches and Scouts	•	•	•	•	•		•	•	Г	•			•		0		•	\$47,500	880
Compliance Officers	0	•	0	•	•			•	Г		•	0		•	•	•		\$62,400	770
Computer & Information Systems Managers	•	•	0	•			•	•	Г	•	•		•	•	•	•	•	\$138,800	1,040
Computer Occupations, All Other	•	•	0	•	•		•	•	Г	•	•		•		•	•	•	\$88,200	920
Construction Managers	•	•	0	•	•			•	Г	•	•	0	•	•	•	•	•	\$105,800	720
Cost Estimators	•	•		•	•		•	•	Г	•	•		•		•	•	•	\$62,300	640
Elementary School Teachers, Exc Spec Ed		•		•			•	•	•	•	•						•	\$55,600	4,620
Financial Analysts	•	•	П	•			•	•	Г				•		•	0	•	\$80,800	700
Financial Managers	•	•	Г	•	•		•	•	Г	•	•		•	3	•	•	•	\$143,700	1,740
Financial Specialists, All Other		•	0	•				•	Г	•	•		•		•	0	•	\$77,900	440
General & Operations Managers	•	•		•	•			•		•			•	•			•	\$116,400	8,910
Health Educators	•	•	•	•	•		•	•	•	•	•		•		•		•	\$77,100	460
Human Resources Managers	0	•	•	•	•		•	•	•	•	•		•		•	•	•	\$122,400	460
Human Resources Specialists	0	•	0	0	•		•	•		•			•				•	\$61,200	1,940
Industrial Engineers	•	•		•	•		•		Г	•		•	•				•	\$82,800	580
Kindergarten Teachers, Exc Spec Ed	•	•	0	•	•		•	•		•				•		•	•	\$53,300	740
Loan Officers			•						Г									\$76,900	790

https://explorer.gdol.ga.gov/gsipub/index.asp?docid=356



Fast job growth \checkmark Above average wages \checkmark At least 400 expected annual job openings

Georgia's Careers to 2026

The careers in this chart have it all!

Skills

Skills and Abilities			70	/		ar	Sk nd Al	ills bilitie	26			/					Vork ivitie	ON		Cha
advanced skills required	quire	d	/	1	/	1	1	1	1	/	600	/	libers /	attion !	tient/	/	spour/	10/	Kion King	Suney
			John	(in	1/0	/	118in	inese	/	/way	18	Sing	O'Gani	quip	/	Sum	0	John John		(5)
Work Activities		1	The least	"Ma	uctin	1	preh	l'ead	1	dilli	0	leach /	de	Tool /	Julen /	atris,	Mon	10/	1 /8	S algery e
frequently found	1	1	902	00/2	The line	0/2		pul	1		ing for	1/2	100	1/3	See See	1/2	all of	The Carte	Welf Figure 8	(Board
MOT jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.	/3	died Thinking	Service Of Sobies Sobies	Lies Oriente	Oral F. Reading	Den Cypression	R. R. Arm.	Write Steadiness	Ass. Expression	Co. I Salling & Car	Com. Training to Others	Contracting On Teaching	Inter- Machines I.	Monit With Complect Equit	Physics Processes	Pro Acts P	Sch. Sch. Sch. Sch. Sch. Sch. Sch. Sch.	Third Organic To Inform	2017 Edition Co	2016.26 Am.
Bachelor's degree continued								di di			3/1 - Sh									
Logisticians	•	•	•	•	•		•	•		•	•		•	•		•	•	•	\$73,400	580
Management Analysts	•	•	•	•	•		•	•		•	•		•	•		•	•	•	\$96,900	2,650
Market Research Analysts & Marketing Spec	•	•		•	0		•	•			•		•	•		•	•	•	\$64,200	2,500
Marketing Managers	•	•	•	•	•		•	•		•	•		•	•		•	•	•	\$138,600	730
Mechanical Engineers	•	•	0	•	•		•	•		0	•	0	•	•		•	0	•	\$83,700	430
Medical & Health Services Managers	•	•	•	•	•		•	•		•			•	•		•	•		\$109,100	840
Middle Schl Teachers, Exc Spec & Career/Tech Ed	•	•	•	•	•		•	•	•	•	•		•	•		•	•	•	\$57,100	2,420
Personal Financial Advisors	0	•		•	•		•	0	•	•	•		•	•		•	•	•	\$124,000	680
Producers & Directors	•	•		•	•		•	•			•		•	•		•	•	•	\$77,000	550
Public Relations Specialists	•	•	•	•	•		•	•		•	•		•	•		•	•	•	\$58,200	620
Registered Nurses	•	•	•	•	•	•	•	•	•	•	•	0	•	•	•	•	•	•	\$65,600	5,410
Sales Managers	•	•	•	•	•		•	•		•	•		•			•	•	•	\$130,800	1,580
Secondary Schl Teachers, Exc Spec & Career/Tech Ed	•	•	•	•	•		•	•	•	•	•		•	•		•	•	•	\$57,100	2,220
Software Developers, Applications	•	•		•	•		•	•		0			•	•		•	0	•	\$103,000	2,300
Training & Development Specialists	•	•	•	•	•		•	•		•	•		•	•		•	•	•	\$62,300	1,120
Associate's degree																				
Dental Hygienists	0	•	•	•	•	•	•	•	•	0		•	•	•	•	•	•		\$66,100	540
Paralegals & Legal Assistants	0	•	0	•	•		•	•			•		•	•		•	•		\$53,600	1,060
Postsecondary non-degree award																				
Aircraft Mechanics & Service Technicians	•	•	•	0	•	•	•	•	•	•	Г	•	•	•	•	•	•	•	\$70,000	800
Some college, no degree																				
Computer User Support Specialists	•	•	•	•	•	0	•	•	Г	0	Г	0	•	•	Г	•	0	•	\$54,200	1,930
High school diploma or equivalent				100 1									50 50				100			
Automotive Body & Related Repairers	0	T	Т	0	•	•	Ī		Г	Г	П	0		•	•	Г			\$51,500	620
Electrical Power-Line Installers & Repairers		•	T	•		•	•	•		•		•		•		•	0	•	\$51,000	630
Supvirs of Construction Trades & Extraction Workers	•	•		0	•	•	•	•		0	•	•		•	•	•	•	•	\$62,400	1,590
Supvrs of Helpers, Laborers, & Material Movers, Hand	•	•	0	•	•		•	•		•		•	•	•	•	•	•	•	\$51,600	1,010
Supvrs of Mechanics, Installers, & Repairers	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	\$63,500	1,460
Insurance Sales Agents	•	•	0	•	•		•	•			•		•	•		•	•		\$67,800	1,630
Production, Planning, & Expediting Clerks	•	•		•	•		•	•		0		0	•	•		•	•	•	\$48,900	1,290
Property, Real Estate, & Community Assoc Mgrs	•	•	0	•	•		•	•		•	•	0	•	•		•	•	•	\$86,700	700
Sales Reps, Services, All Other	•	•		•	•		•	•		0	•		•	•		•	•	•	\$58,800	4,050
Sales Reps, Wholesale & Mfg, Exc Tech & Scientific Products	0		0	•	•		•	•			•		•	•		•		•	\$63,600	6,590

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GEORGIA'S STEM Careers to 2026

Science I Technology I Engineering I Mathematics

Knowledge								,	(now	rledge	2									Educ	ation	1	Occupational Characteristics	
Understanding of principles and facts of subject matter full knowledge required some knowledge required Education Typical education needed to enter an occupation	anagement		truction	d Personal Svc	tions and Media	ronics	nting	te	nology		Safety and Security		on and Processing	ν	1 Resources		and Anthropology		nal Degree			gree/Some College	a Wage Survey	ings
jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.	Administration and Management	Biology/Chemistry	Design/Bldg and Construction	Clerical/Customer and Personal Svc	Telecom/Communications and Media	Computers and Electronics	Economics and Accounting	Education and Training	Engineering and Technology	English Language	Law and Govt/Public Safety and Security	Mathematics	Mechanical/Production and Processing	Medicine and Dentistry	Personnel and Human Resources	Physics	Psychology/Sociology and Anthropology	Therapy/Counseling	Doctoral or Professional Degree	Master's Degree	Bachelor's Degree	HS Diploma/Assoc Degree/Some College	2017 Edition - Georgia Wage Survey	2016-26 Annual Openings
Life and Physical Science, Engineering, Mat	hem	natio	cs, a	nd	Info	rm	atic	n T	ech	nok	ogy	Occ	upa	tio	15	_		_				_		
Aerospace Engineers	╙		0			•			٠	•		•	٠			•					1		\$112,400	240
Civil Engineering Technicians			•			•			•	•	О	•										1	\$47,800	190
Civil Engineers 🌇	•		•	0		•	•		•	•	О	•			•	•					1		\$90,200	880
Computer & Information Systems Managers 🌃	•			0		•		•	•	•		•			•						1		\$138,800	1,040
Computer Network Architects	Ш		0	O	О	•			•	•		•									1		\$117,200	350
Computer Network Support Specialists	•			0	•	•			•	•												1	\$73,100	580
Computer Occupations, All Other	•		0	0	•	•			•	•		•					0				1		\$88,200	920
Computer Systems Analysts				0		•			•	•		٠									1		\$93,500	1,150
Computer User Support Specialists				O	•	•				•		•										1	\$54,200	1,930
Database Administrators				0	•	•				•		•									1		\$89,600	350
Electrical & Electronics Engineering Techs			0	0		•			•	•		•	•		- 1	•			0. /2			1	\$60,200	360
Electrical Engineers	П		0			•		•	•	•		•	0			•					1		\$90,400	340
Electronics Engineers, Exc Computer			0	O	0	•			•	•		•	•			•					1		\$93,700	400
Engineers, All Other		•	0	0	0	•			•	•	0	•	•		- 12	•					1		\$92,100	230
Environmental Engineers	•	•	0	0		•		•	•	•	•	•	O	İÌ	- 25	•					1		\$68,200	140
Industrial Engineers	•		O	0		•		•		•		•	•				П				1		\$82,800	580
Information Security Analysts	•			0	•			•	•		0										1		\$91,000	210
Mechanical Engineers	•	0	0	•		•		•	•	•		•	٠			•					1		\$83,700	430
Medical Scientists, Exc Epidemiologists		•				•				•		•	٠	•					1				\$64,000	150
Network & Computer Systems Administrators			8 3			•				•		•	0.		12				3 8		1		\$88,200	750
Operations Research Analysts						•			•	•		•	0		- 6		Г				1		\$64,300	240
Sales Reps, Wholesale & Mfg, Tech & Scientific Products				0		•				•		•	0		- 6						1		\$88,000	1,040
Software Developers, Applications	П		0	0		•			•	•		•									1		\$103,000	2,300
Software Developers, Systems Software			0	0	0	•						•									1		\$98,600	970
Statisticians						•				•		•								1			\$87,200	100
Surveying & Mapping Technicians	П			0		•				•	•				- 2	- 1			-		Г	1	\$41,100	240
Web Developers	П		0	0	0	•	П			•												1	\$78,200	350
Health Occupations														01-02							9 5			
Dental Hygienists		С		O										•			0					1	\$66,100	540
Dentists, General	•	0		0				•		•				•	•		0		1				\$176,100	160
Diagnostic Medical Sonographers		0		•		•		•		•				•	11	0	0					1	\$63,400	140
Emergency Medical Techs & Paramedics	•	•		•	O		П			•	•	•		•	1	1	0	•				1	\$33,400	780
Family & General Practitioners				0						•		•		•	- 12		0	•	1		Г		\$213,800	180
Health Diagnosing & Treating Practitioners, All Other				•					Г					•				•	-	1	Г		\$103,500	190



https://explorer.gdol.ga.gov/gsipub/index.asp?docid=356

GEORGIA'S STEM Careers to 2026

Science I Technology I Engineering I Mathematics

Knowledge	Knowledge															Edu	ation	1	Occupational Characteristics					
Understanding of principles and facts of subject matter full knowledge required some knowledge required Education	agement		ction	rsonal Svc	s and Media	cs	8		780		ty and Security		nd Processing		sources		d Anthropology		oegree			e/Some College	age Survey	
Typical education needed to enter an occupation	d Man	980	pustruc	and Pe	ication	ectroni	:ountin	ning	chnolo		lic Safe		ction a	hstry	nan Re		gy and	50	l leuois			Degree	™ Bia	pening
jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.	Administration and Management	Biology/Chemistry	Design/Bldg and Construction	Clerical/Customer and Personal Svo	Telecom/Communications and Media	Computers and Electronics	Economics and Accounting	Education and Training	Engineering and Technology	English Language	Law and Govt/Public Safety and Security	Mathematics	Mechanical/Production and Processing	Medicine and Dentistry	Personnel and Human Resources	Physics	Psychology/Sociology and Anthropology	Therapy/Counseling	Doctoral or Professional Degree	Master's Degree	Bachelor's Degree	HS Diploma/Assoc Degree/Some College	2017 Edition - Georgia Wage Survey	2016-26 Annual Openings
Health Occupations Continued																								
Health Technologists & Technicians, All Other	•	O		•		•		•		•	0	•		•	•		O					1	\$42,200	340
Internists, General	•	•		•		•		•		•	•	•		•	•		•	•	1				\$255,200	90
Licensed Practical & Licensed Vocational Nurses	•	O						•			•	•		•		8 8	•	•			5 %	1	\$40,700	2,250
Med & Clinical Laboratory Technicians		•		•				•	9		0	•		•		0 2				W 23		1	\$36,700	430
Med & Clinical Laboratory Technologists		•		•				•		•		•	o	•							1		\$58,600	370
Med Records & Health Information Techs				•		•				•					ĺ							1	\$38,900	450
Nurse Practitioners		•		•	ာ	•		•		•	•	•		•			•	•		1			\$101,900	420
Nursing Instructors & Teachers, Postsec	•	•		•	၁	•		•		•	0	•		•			•	•		1			\$65,400	110
Occupational Therapists		0		0				•		•				•			•	•		1			\$83,100	240
Pharmacists		•		•		•				•	0	•		•			0	•	1	() - J			\$117,600	510
Pharmacy Technicians				•						•		•		•		15 0						1	\$29,400	1,170
Physical Therapists (•			•				•		•				•	7		o	•	1				\$86,800	410
Physician Assistants		•		o		•				•				•			•	•		1			\$100,800	400
Physicians & Surgeons, All Other		•		О		•		•		•	•	•		•	•	•	0	•	1				\$224,200	440
Radiologic Technologists		O		•		•		•		•	0			•		•	O					1	\$52,600	360
Registered Nurses	П	0		0				•		•		•		•			0	•			1		\$65,600	5,410
Respiratory Therapists	П			0						•		•		•			0					1	\$55,200	310
Speech-Language Pathologists				O				•		•				•			0	•		1			\$74,100	260
Surgical Technologists				o						•				•								1	\$41,900	350
Veterinarians		•	Г	0						•				•					1				\$86,900	120
Veterinary Technologists & Technicians		0		•								•		•								1	\$31,000	310
Architecture Occupations																								
Architects, Exc Landscape & Naval	•		•	ာ		•	•			•	•	•					П		Г		1		\$98,300	250
Architectural & Civil Drafters				o		•		7 1		•	0	•				7 1				1		1	\$53,800	300
Architectural & Engineering Managers			0	c		•				•	•	•	•		•	•			Г		1		\$138,100	370
Landscape Architects		0	•	•	ာ	•	•			•	•	•									1		\$71,400	90
Social Science Occupations								200 00																200
Clinical, Counseling, & School Psychologists	•		Г					•		•	•	•					•		/				\$83,400	230
Economists						•	•			•		•								1			\$105,100	30
Political Science Teachers, Postsec	•			c	ာ	•		•		•	0				0)	01-23	•		1				\$76,400	40
Psychology Teachers, Postsec						•		•		•		•						•	1				\$68,700	70
Social Science Research Assistants	•			•		•		•		•		•					•				1		\$46,400	100
Social Scientists & Related Workers, All Other			•	c					•	•	o	•									1		\$68,000	130
Urban & Regional Planners			0	0	0			•		•		•					0		Г	1			\$56,800	50

FS* Note: This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the Georgia Department of Labor and does not necessarily reflect the official position of the U.S. Department of Labor. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

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CTAE INDUSTRY CERTIFICATION INITIATIVE

When a program became industry certified, it received a "stamp of excellence", which represents the apex of program quality. Only those programs that have successfully undergone rigorous reviews by leaders from business and industry are recognized with this distinction.

The State Department of Education is committed to the industry certification process as a part of its effort to strengthen technical and academic standards for all Career, Technical and Agricultural Education (CTAE) programs.

This formal process strengthens all program components, including:

- Classrooms and labs which are equipped with state-of-the-art equipment and technology;
- CTAE and academic performance standards that are aligned to national standards;
- In-depth, project-based instruction in all curriculum areas;
- Appropriate and varied Career Related Education (CRE) instruction, including school-based enterprises and entrepreneurial ventures;
- · Career and Technical Student Organizations (CTSOs) which offer co-curricular competitive events on the local, state and national level and provide leadership development skills for personal and professional growth; and,
- Business, industry and community involvement in all aspects of the program.

Industry certified programs not only offer outstanding opportunities to students who receive instruction through such programs; but they also offer positive benefits for schools as well as employers.

CTAE INDUSTRY CERTIFICATION

INDUSTRY CERTIFIED PROGRAMS IN FORSYTH COUNTY

Automotive Service Technology (Certified by NATEF):

Forsyth Central High School

A/V, Technology, and Film (Certified by MEFGA):

North Forsyth High School West Forsyth High School

Business and Computer Science (Certified by SHRM):

Lambert High School North Forsyth High School South Forsyth High School West Forsyth High School

Culinary Arts (Certified by ACFEF):

Lambert High School South Forsyth High School West Forsyth High School

Engineering (Certified by ITEGA):

Forsyth Central High School Lambert High School North Forsyth High School South Forsyth High School West Forsyth High School

Healthcare Science (Certified by HomeTown Health):

Lambert High School North Forsyth High School

Marketing (Certified by AMA):

Forsyth Central High School Lambert High School North Forsyth High School South Forsyth High School West Forsyth High School

FY20 Industry Certification Process:

Automotive Service Technology (Re-certification)

FY21 Industry Certification Process:

A/V, Technology, and Film **Business and Computer Science** Nutrition and Food Science

CTAE INDUSTRY CERTIFICATION

HOW DO STUDENTS BENEFIT?

- The student is ensured participation in a program that has been carefully interfaced with current industry standards thus helping to increase their qualifications toward successful employment.
- The curriculum and the delivery method for that curriculum taught to students are improved and updated enabling the student to receive high quality instruction.

HOW DOES THE COMMUNITY VIEW A SCHOOL WHERE PROGRAMS HAVE UNDERGONE THE INDUSTRY **CERTIFICATION PROCESS?**

- The school is viewed as having exceptional programs. Through the industry certification process, schools are better able to align curriculum with recognized standards to aid with providing better career opportunities for students.
- · Communities understand that schools which pursue this distinction are committed to improving student preparation and ensuring that Georgia's workforce meets the demands of the 21st century.

WHAT DOES CERTIFICATION REPRESENT TO THE BUSINESS COMMUNITY/EMPLOYERS IN THE SCHOOL'S SERVICE AREA?

- It represents that they will receive qualified students who will make productive employees.
- It represents that they have had meaningful involvement in public education and have contributed to the development of a highly-skilled, future workforce for Georgia.





NONTRADITIONAL OCCUPATIONS

Nontraditional careers are those occupations or fields of work for which individuals from one gender comprise less than 25% of the individuals employed. Students are encouraged to enroll in courses that fit their career goals regardless of the gender make-up in the classroom. Some examples of nontraditional careers are:

- · Nursing for males
- · Drafting for females
- · Cosmetology for males
- Automotive for females

LOCAL EDUCATION AGENCY ACCOUNTABILITY

Two different methods of evaluation/review are used try the state to assist local systems in their compliance of federal legislation regarding Perkins funding and gender equity.

CTAE PROGRAM REVIEWS

- · Required by Perkins
- Conducted with 1/5 of systems annually
- · Serves as mechanism for evaluation both internally and externally
- Provides professional learning for review teams

METHODS OF ADMINISTRATION (MOA) COMPLIANCE REVIEWS

- Required by Office for Civil Rights
- Conducted in 5 systems per year based on a federally approved targeting plan
- Serves as a mechanism for evaluation both internally and externally
- Provides professional learning for compliance review teams

Keeping accurate documentation of non-traditional education progress made for each Georgia school system is critical to measure continuous improvement in program concentrations and pathways.

NONTRADITIONAL OCCUPATIONS AND RESOURCES

CAREER PLANNING RESOURCES

www.georgiacrn.org

Georgia Career Resource Network is a web site designed to assist counselors, instructors, and administrators with career-related programs, initiatives, and information.

www.gafutures.org

GAfutures is an internet site for planning, paying, and applying for college.

www.careervoyages.gov

Career Voyage is a national website for emerging industries and high demand occupations.

www.bls.gov/oco/

The Occupational Outlook Handbook is a nationally recognized source of career information. It describes what workers do on the job, working conditions, the training and education needed, earnings, and expected job prospects. The handbook covers a wide range of occupations.

www.myplan.com

MyPlan.com is a career database which allows visitors to search, browse or query through over 900 different careers, read career profiles, job descriptions, and educational requirements, and explore career outlooks.

CTAE FOURTH SCIENCE OPTIONS

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement and have been approved by the Board of Regents as a fourth science.

COURSE NAME	CTAE PATHWAY
Appropriate and Alternative Energy Technologies	Energy
Energy and Power Technologies	Energy
Applications of Biotechnology	Health Science
Essentials of Biotechnology	Health Science
Essentials of Healthcare	Health Science
Sports Medicine	Health Science
Food for Life	Human Services
Food Science	Human Services
Forest Science	Agriculture, Food and Natural Resources
General Horticulture and Plant Science	Agriculture, Food and Natural Resources
Natural Resources Management	Agriculture, Food and Natural Resources
Animal Science Technology/Biotechnology	Agriculture, Food and Natural Resources
Plant Science and Biotechnology	Agriculture, Food and Natural Resources
Advanced AC and DC Circuits	Science, Technology, Engineering, & Mathematics
Advanced Placement Computer Science	Science, Technology, Engineering, & Mathematics
International Baccalaureate Computer Science, Year One	Information Technology
International Baccalaureate Computer Science, Year Two	Information Technology
Advanced Placement Computer Science Principles	Information Technology
Computer Science Principles	Information Technology
Programming, Games, Apps and Society	Information Technology
Web Development	Information Technology
Embedded Computing	Information Technology
Game Design: Animation and Simulation	Information Technology
Forensic Science and Criminal Investigations	Law, Public Safety, Corrections and Security





All CTAE students enrolled in a third-year career pathway course or work-based learning during the school year will participate in organizational ethics and soft skills training. Through a sequence of activities during the school year, students will spend time developing personal philosophies around employability standards and the job-search process, with the Mock Interview Week as the culminating activity at their high school. Over 2,000 students will participate in this experience during the school year!

Mock interviews will expose each student to the interview portion of the job search process, as well as provide feedback on the development of resumes and other career-related documents. This event will be community-driven, as volunteers from across the county spend time creating an experience that will help students learn what is expected in a job interview, while also providing constructive feedback on all aspects on the interview process. A focus during the school year includes the following standards:

- Discipline and Character
- Attendance and Punctuality
- · Job Shadowing and Community Service Projects
- Productivity and Academic Performance
- · Responsibility and Organization
- Attitude and Respect
- Teamwork and Work Habits
- Self-Management and Time Management
- Oral and Written Business Communication Skills
- Appearance and Professional Image

CTAE MOCK INTERVIEWS

MOCK INTERVIEWS

ALLIANCE ACADEMY FOR INNOVATION

March 16-20, 2020

DENMARK HIGH SCHOOL

March 2-6, 2020

FORSYTH CENTRAL HIGH SCHOOL

February 24-28, 2020

LAMBERT HIGH SCHOOL

March 2-6, 2020

NORTH FORSYTH HIGH SCHOOL

March 9-11, 2020

SOUTH FORSYTH HIGH SCHOOL

February 24-28, 2020

WEST FORSYTH HIGH SCHOOL

March 16-20, 2020



Students who successfully complete the requirements of this intense focus will receive GeorgiaBEST (Business Ethics Student Training) certification awarded by the Georgia Department of Labor. Georgia businesses and hiring managers are recognizing the importance of GeorgiaBEST and understand that these students have gone above and beyond to prepare themselves for the workplace.

DEFINITIONS AND DESCRIPTIONS

PERSONAL CHARACTERISTICS

Attitude: The ability to demonstrate a positive, optimistic outlook; take responsibility for actions; use appropriate language; avoid gossip; show politeness; smile on a regular basis; to be enthusiastic and self-confident; take direction; to be eager and motivated to complete tasks.

Initiative: The ability to be productive and show ambition; go above and beyond the minimum job requirements; voluntarily start projects; attempt non-routine jobs and tasks; establish credibility; to be able to work independently; complete assigned tasks efficiently, effectively and timely; the ability to work towards goals.

Flexibility: The ability to adapt; display a teachable heart and willingness to change or compromise; to be receptive to new information; the ability to learn from mistakes for the benefit of self and the employer.

Organization: The ability to manage both one's self and one's own time and the time of others; use resources effectively; plan and prioritize work and personal life to meet goals and deadlines; the ability to overcome prograstination.

Discipline: The ability to follow the chain of command; demonstrate good character; to be even tempered; behave appropriately; accept unavoidable interruptions and pressure; the ability to pay attention to details; display a high level of concentration even when assigned an unpleasant task; the ability to demonstrate grit and resilience.

Integrity: The ability to demonstrate moral, ethical, loyal, trustworthy, and honest behavior; to be accountable and dependable; play fair; maintain confidentiality; do the right thing even when no one is looking; the ability to produce quality work; work to fulfill the mission of the organization; the ability to define personal values versus what is valued.

GEORGIABEST AND CAREER RESEARCH

CAREER PLANNING RESOURCES

www.georgiacrn.org

Georgia Career Resource Network is a web site designed to assist counselors, instructors, and administrators with career-related programs, initiatives, and information.

www.gafutures.org

GAfutures is an internet site for planning, paying, and applying for college.

www.careervoyages.gov

Career Voyage is a national web-site for emerging industries and high demand occupations.

www.bls.gov/oco/

The Occupational Outlook Handbook is a nationally recognized source of career information. It describes what workers do on the job, working conditions, the training and education needed, earnings, and expected job prospects. The handbook covers a wide range of occupations.

www.myplan.com

MyPlan.com is a career database which allows visitors to search, browse or query through over 900 different careers, read career profiles, job descriptions, and educational requirements, and explore career outlooks.

GEORGIABEST AND CAREER RESEARCH

INTERACTIONS WITH OTHERS

Respect: The ability to acknowledge and appreciate the opinions, property, and rights of others; value diversity and cultural differences; respond appropriately to those in authority; respond to feedback unemotionally and nondefensively; the ability to negotiate diplomatic solutions to interpersonal and workplace issues; acknowledge the economic, political, and social relationships that impact multiple levels of an organization; the ability to intervene when others demonstrate negative attitudes or disrespect and help them recognize the inappropriateness of their behavior.

Effective Communication: The ability to display appropriate listening, nonverbal, verbal, interpersonal, and written skills; send a consistent, clear, concise, and courteous message that is easily understood by the receiving party; ask questions, clarify or summarize, and provide feedback to ensure the message has been understood; the ability to read and interpret workplace documents and writing clearly and correctly; the ability to give and receive information and convey our ideas and opinions with those around us.

Teamwork: The ability to work collaboratively and cooperatively with others toward a common goal or success of the team; participate appropriately as a team member by assisting others or requesting help when needed; handle criticism, conflicts, and complaints appropriately; demonstrate leadership; relate well to others; take an interest in what others say and do in order to build relationships; contribute to the group with ideas, suggestions, and effort; the ability to participate in group decision-making.

EMPLOYER EXPECTATIONS

Attendance and Punctuality: The ability to come to work/school every day on time; leave and return for meals and breaks on time; the ability to notify supervisor/instructor in advance of planned absences; make up work or assignments punctually; come to work/school prepared to work.

Customer Service: The ability to sees the customer's point of view; handle customer complaints correctly; interact appropriately with customers; the ability to sell the company as well as the product by demonstrating exceptional service; listen attentively and provide undivided attention; identify and anticipate needs; make customers feel important and appreciated; convey sincerity; know how to apologize; give more than expected; follow through on promises; solicit regular feedback and encourage and welcome suggestions; the ability to treat internal customers well; show appreciation; communicate regularly with customers; demonstrate the power of "yes"; provide helpful, courteous and knowledgeable service.

Critical Thinking and Problem Solving: The ability to analyze facts and use a logical approach to form an accurate, objective decision or plan of action; recognize and clearly define a problem, determine the cause, identify, prioritize, and select alternatives for a solution, then implement the solution even for difficult or complex issues; evaluate and monitor progress and revise the plan as needed; the ability to identify resources needed to solve a problem; generate new ideas; consider the relative costs and benefits of potential actions to choose the most appropriate one; discover a rule or principle underlying the relationship between two or more objects and apply it to a new situation or when solving a problem; the ability to "think on one's feet", assess problems, and find well-thought out solutions within a reasonable time frame; the ability to think critically and creatively, share thoughts and opinions; the ability to understand framework for sound ethical decisions.

Technology Usage and Social Media Ethics: The ability to follow policy regarding use of personal technology while at work/school; demonstrate proper use of company technology; understand how one's online actions and behavior can have far-reaching and long-lasting effects; understand the need for accurate online company information.

Professionalism: The ability to act appropriately and display the character, conduct, standards, and behavior expected from a professional person; display appropriate language, dress, grooming and hygiene; acknowledge that appearance reflects on the image of the employer; the ability to display proper etiquette in meetings or at work-related functions.

Adherence to Policy: The ability to follow company rules, regulations, procedures, and directions especially those related to safety; display good workplace habits; keep assigned area neat and orderly; the ability to maintain equipment to ensure longevity and efficiency; determine causes of operating errors or equipment issues and decide what to do about it; take proactive measures to address unsafe practices or behaviors.



EMPLOYER SUMMIT



WE SURVEYED 770 EMPLOYERS IN GEORGIA ABOUT SOFT SKILLS. THEY PROVIDED THE FOLLOWING FEEDBACK...

What is your employee turnover rate?

< 5% 5% - 10%





To what do you attribute your turnover rate?

LACK OF:

Work Ethic/Soft Skills

Technical Skills

Work Schedules/Shifts

Pay/Benefits



of the surveyed employers said SOFT SKILLS or WORK ETHICS were an issue at their company

The issues of most concern are:





ATTITUDE & RESPECT

A WHOPPING



OF EMPLOYERS SAID

WERE OF MORE CONCERN THAN BASIC...











OF EMPLOYERS SAID THEY WOULD BE WILLING 76% TO GIVE PREFERENCE TO AN APPLICANT WHO HOLDS A GeorgiaBEST CERTIFICATE













42% of employers believe policy makers should place a high priority on WORKERS WITH BETTER SOFT SKILLS

THE EMPLOYERS SPOKE AND WE LISTENED! WE WILL BE ATTACKING THIS LACK OF EMPLOYABILITY SKILLS EPIDEMIC USING A THREE-PRONGED APPROACH:

GeorgiaBEST@School

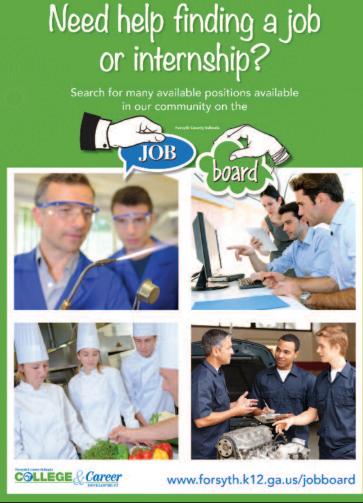
GeorgiaBEST@Work

GeorgiaBEST@Home









FINDING A JOB THROUGH JOB BOARD

A student job board seeks to list job opportunities specifically available to high school students in the surrounding area which are listed by employment category. FCS job posting services are available to local employers, business, industry, government, and non-profit organizations for assistance in seeking qualified employees or interns. To place a listing as an employer or search jobs available as a student, visit www.forsyth.k12.ga.us/jobboard. The FCS Job Posting Board acts only as a posting service and makes no particular recommendations regarding employers or students applying for jobs.

DISCLAIMER: FCS Job Posting Board acts only as a posting service and makes no particular recommendations regarding employers or students applying for jobs. We make no representations or guarantees about positions listed by the employer, not do we make guarantees about students applying for these positions. FCS is not responsible for safety, wages, working conditions, or other aspects of off-campus employment. Due to the volume of jobs received by our office, we are unable to research each organization or person that lists a job with us, not are we able to research each student who applies for these positions. Administrators review all positions that are submitted for posting, and reserves the right to reject positions.



FCS College and Career Development seeks to provide an ongoing partnership between education and business/industry to prepare the students of Forsyth County with the skills necessary to meet world-class standards, successfully continue life-long learning, and enter the marketplace as productive citizens. Career pathways provide "seamless" instruction in career and technical education that connects academic and technical skills to future educational and career opportunities. Options within the program offer curriculum and instruction linked to industry standards in labs featuring the latest technology and equipment replicating simulated work environments. Successful completion of a career pathway also allows students to industry credentialing required in today's job market.

Career and technical education opportunites integrate with all of the secondary courses of study through various career pathways offered at middle and high schools, along with internship and job shadowing opportunites at the high school level. The commitment to complete a career pathway is never binding and can always be changed. The goal is not to require high school students to choose a major course of study as a college student would, but to begin to think, to study, to plan, and to set goals for the future and the career that awaits. It also allows students to:

- blend rigorous academic/technical preparation
- discover their interests and passions, empowering them to choose the educational pathway that will lead to success in high school, college and career
- utilize career development services
- experience all aspects of a business or industry
- plan for transitions into post0secondary opportunities

After graduating high school, students continue post-secondary education at specialty schools, technical colleges, community colleges, and major universities across the country. In addition, several of the career pathways are articulated for college credit. While pursuing additional education, students may use Hope and State Aid Programs (which include both the Zell Miller Scholarships and Zell Miller Grants), Federal Aid, and other scholarship opportunites posted at district high schools.



COLLEGE AND CAREER DEVELOPMENT

Forsyth County Schools offers a variety of career pathways that meet the demands of the modern workplace by equipping students for college and career. Areas include:

- Aerospace: Aviation Maintenance
- Aerospace: Flight Operations
- Agriculture
- Arts, A/V Technology, and Communications
- Biotechnology Research and Development
- · Business, Management, and Administration
- Computer Science
- Cosmetology
- · Culinary Arts
- · Cybersecurity
- Distribution and Logistics
- Engineering and Technology
- Energy Systems
- Entrepreneurship
- Fashion, Merchandising, and Retail Management
- Finance: Accounting and Financial Services
- Firefighting
- Food and Nutrition
- Government and Public Administration/JROTC
- Health Science and Health Information
- Hospitality and Tourism
- Human Resource Management
- Law Enforcement: Criminal Investigations
- Legal Services
- Manufacturing
- Marketing and Management
- Mechatronics
- Programming
- · Sports and Entertainment Marketing
- Sports Medicine
- Teaching as a Profession
- Transportation/Automotive Service Technician
- Web Development



To be eligible for the Dual Enrollment program, a student must:

- Be enrolled in the ninth, tenth, eleventh or twelfth grade in accordance with O.C.G.A. §20-2-690(c);
- Be admitted to an eligible, participating USG, TCSG or Private postsecondary institution as a dual credit enrollment student;
- Be enrolled in courses listed in the approved Dual Enrollment Course Directory;
- Maintain satisfactory academic progress as defined by the eligible postsecondary institution:
- Complete the Dual Enrollment online application which includes three parts: Student and Parent/ Guardian, High School and Postsecondary Institution. All three sections are completed and submitted to Georgia Student Finance Commission;
- Complete required advisement conference with the high school counselor along with parent/guardian prior to 1st, 2nd and/or summer semesters of each participating school year completing both Dual Enrollment program documents as well as the district Dual Enrollment document. It is vitally important that students meet with high school counselor to ensure all prior approvals and course alignment occur. Not completing this step could lead to inability to participate in Dual Enrollment if requirements are not met!

Students, who meet all eligibility requirements, receive a student-specific award amount to be applied toward tuition, mandatory fees and books. In addition, postsecondary credit hours taken as a Dual Credit Enrollment student, for which Dual Enrollment payment is made are not counted as "attempted-hours" nor are they included in the "combined paid-hours" limit for the purposes of HOPE Scholarship or Zell Miller Scholarship eligibility.

School counselors have Dual Enrollment information and this link is also helpful:

https://www.GAfutures.org/Financial_Aid_Planning/Scholarships/Grants_and_Scholarships/Accel_Program.aspx

DUAL ENROLLMENT



Dual Enrollment program provides district students the opportunity to be "dual credit enrolled". This means a Dual Enrollment student is enrolled at both the high school and college or technical college. In this program a student may be part time or full time at the postsecondary school. The student receives credit for approved courses on the high school transcript as well as their college or technical college transcript. Thus, Dual Enrollment students take postsecondary coursework for credit towards both high school graduation and postsecondary requirements. Beginning with Fall term 2016 (FY 2017) the program is offered during all terms of the school year: fall, spring and summer semesters.

INFORMATION NIGHTS FOR 2020-21 ENROLLMENT



UNIVERSITY OF NORTH GEORGIA December 3, 2019 at 6PM December 5, 2019 at 6PM

Cumming Campus 300 Aquatic Circle, Cumming, GA 30040 470-239-3100



LANIER TECHNICAL COLLEGE December 11, 2019 at 6PM

Forsyth Campus 3410 Ronald Reagan Blvd Cumming, GA 30041 678-341-6633



WORKFORCE FORSYTH



In 2014, Forsyth County Schools (FCS), in partnership with the Cumming–Forsyth County Chamber of Commerce, Lanier Technical College, and the University of North Georgia, launched Workforce Forsyth, a community initiative focused on developing strategies to support Career, Technical, and Agricultural Education (CTAE) in the district. Key next steps for the partnership focused on aligning career education efforts, guiding pathway creation, expanding classroom participation, and enriching curricula.

Building on the initial efforts, FCS is working to create a community workforce development plan. This effort builds on the initial Workforce Forsyth plan and has led to the creation of this roadmap to guide CTAE programing within the school district over the next three school years (2018–2021). This plan presents priorities to guide investments in and strategies for workforce development.

THE PROCESS

This inclusive planning process involved key business, community, and education stakeholders. Over 70 steering committee member from across Forsyth County provided unique perspectives on FCS CTAE.

The development of this three-year Workforce Forsyth 2.0 plan began with a needs assessment designed to allow business partners, students, school leaders, and CTAE teachers to discuss their perspectives on the current state of FCS CTAE. These groups provided input relating to current programing, skills gaps, skills needs, and opportunities for growth.

To reflect upon the findings from the needs assessment and to prepare for priority planning, steering committee members conducted an environmental scan. This exercise challenged members to identify specific strengths, opportunities, aspirations, and risks (SOAR) of and to FCS CTAE. Through this SOAR analysis, the committee members gained a more thorough understanding of the environment in which CTAE programs are administered. This session built on information gathered during the needs assessment and provided a more holistic understanding of how CTAE should move forward in the coming years. Four questions guided committee members through this portion of the process:

- 1. What are the greatest strengths of CTAE in Forsyth County?
- 2. What are the best opportunities for CTAE in Forsyth County?
- 3. What do we want CTAE in Forsyth County to be known for?
- 4. What are the greatest risks/barriers to achieving our aspirations for the program?

In the final stage of the development process, committee members identified four priorities that will guide FCS CTAE over the next three years. The committee considered the information gathered during the needs assessment and environmental scan to articulate the priorities and values discussed below. Additionally, the steering committee developed a set of values to guide future investments and decisions.

FCS has also implemented a Career, Technical, and Agriculture Education Excellence Model. The model identifies best practices, metrics, and aspirational goals for every CTAE program in the district. Teachers and administrators use the model as a program planning and improvement tool.

Workforce Forsyth 2.0 Priorities										
	Short-Term Strategies	Long-Term Strategies								
Priority 1 Marketing & Outreach Plan	Engage with current and potential stakeholders Host a stakeholder showcase	Vertical Alignment between elementary, middle, and high school								
Priority 2 Build & Evaluate a Soft Skills Program	Establish a district-wide Soft Skills Committee Explore introducing soft-skills in earlier grades	Evaluate programs to ensure they are meeting student needs and industry needs								
Priority 3 Build Leadership Capacity for All Students	 Engage more students in CTSOs Redefine the role of the counseling staff	Each school in the district should be offering at least one leadership development program								
Priority 4 Grow Partnerships	Update and evaluate existing business partnerships Leverage business partnerships to increase teacher externship opportunities	Develop deeper relationships with business partners								







High School Career Pathways

2019-20

AGRICULTURE CLUSTER

Agriculture Leadership in Animal Production Pathway (N)

Basic Agriculture Science Animal Science Technology/Biotechnology Agribusiness Management and Leadership* Internship Forsyth or Mentorship Forsyth

- Agriculture Leadership in Horticulture Pathway (N) Basic Agriculture Science General Horticulture and Plant Science Agribusiness Management and Leadership* Internship Forsyth or Mentorship Forsyth
- Companion Animal Systems Pathway (D) Basic Agriculture Science Animal Science and Biotechnology Small Animal Care* Internship Forsyth or Mentorship Forsyth
- **Environmental Agriculture Systems Pathway (N)** Basic Agriculture Science Environmental Science and Stewardship Sustainable Agriculture* Internship Forsyth or Mentorship Forsyth
- Landscape Management Systems Pathway (S) Basic Agriculture Science General Horticulture and Plant Science Turf Production and Management* Internship Forsyth or Mentorship Forsyth
- Veterinary Science Pathway (C. D) Basic Agriculture Science Animal Science and Biotechnology Veterinary Science* Internship Forsyth or Mentorship Forsyth

ARTS. A/V TECHNOLOGY. AND COMMUNICATIONS CLUSTER

Audio-Video Technology and Film Pathway (C, L, N, S,

Audio & Video Technology & Film Audio & Video Technology & Film II Audio & Video Technology & Film III* Internship Forsyth or Mentorship Forsyth

- Animation and Digital Media Pathway (N) Introduction to Digital Media Principles and Concepts of Animation Advanced Animation, Game, and app Design* Internship Forsyth or Mentorship Forsyth
- Graphic Design Pathway (A) Introduction to Graphics and Design Graphic Design and Production Advanced Graphic Design* Internship Forsyth or Mentorship Forsyth

BUSINESS. MANAGEMENT. & ADMINISTRATION CLUSTER

- Entrepreneurship Pathway (D, FA, L, S) Introduction to Business and Technology Legal Environment of Business Entrepreneurship* Internship Forsyth or Mentorship Forsyth
- Human Resources Management Pathway (FA, S) Introduction to Business and Technology Legal Environment of Business Human Resources Principles* Internship Forsyth or Mentorship Forsyth



my for Innovation | C = Forsyth Central HS | D = Denmark HS | FV = Forsyth Virtual | L = Lambert HS | N = North Forsyth HS The Forsyth Academy | FV = Forsyth Virtual | L = Lambert HS | N = North Forsyth HS | N = North Forsyth HS | W = West Forsyth HS | C/STEM = STEM Academy @ Forsyth Central HS | S/IB = International Baccalaureate @ South Forsyth HS

To fulfill state pathway requirements, students must complete the sequences of courses shown and take an end-of-pathway assessment when available.

Internship Forsyth and Mentorship Forsyth opportunities are available in each career pathway e your school counselor or Career Development Coordinato for more information or visit www.forsyth.k12.ga.us/ctae.









High School Career Pathways

2019-20

EDUCATION AND TRAINING CLUSTER

Teaching as a Profession Pathway (C, D, L, N, S, W) Examining the Teaching Profession Contemporary Issues in Education Teaching as a Profession Practicum* Internship Forsyth or Mentorship Forsyth

ENERGY CLUSTER

Energy Systems Pathway (A) Foundations of Energy Technologies **Energy and Power Technology** Appropriate and Alternative Energy Technologies* Internship Forsyth or Mentorship Forsyth

FINANCE CLUSTER

- Advanced Accounting Pathway (L) Introduction to Business and Technology Principles of Accounting I Principles of Accounting II* Internship Forsyth or Mentorship Forsyth
- Business Accounting Pathway (FV, L, S) Introduction to Business and Technology Financial Literacy Principles of Accounting I* Internship Forsyth or Mentorship Forsyth
- Financial Services Pathway (D, FV, L, S) Introduction to Business and Technology Financial Literacy Banking, Investing and Insurance* Internship Forsyth or Mentorship Forsyth

GOVT & PUBLIC ADMIN CLUSTER

JROTC Pathway - Marines (N) MCJROTC Leadership Education I/II MCJROTC Leadership Education III/IV MCJROTC Leadership Education V/VI MCJROTC Leadership Education VII/VIII

HEALTH SCIENCE CLUSTER

- Biotechnology Research & Development Pathway (C/STEM, L) Introduction to Healthcare Science Essentials of Biotechnology Applications of Biotechnology' Internship Forsyth or Mentorship Forsyth
- Diagnostic Services Phlebotomy Pathway (L) Introduction to Healthcare Science Essentials of Healthcare Diagnostics Phlebotomy* Internship Forsyth or Mentorship Forsyth
- **Emergency Medical Responder Pathway (A)** Introduction to Healthcare Science Essentials of Healthcare Emergency Medical Responder* Internship Forsyth or Mentorship Forsyth
- Health Information Technology Pathway (A) Introduction to Healthcare Science Essentials of Heath Information Technology Applications of Health Information Technology* Internship Forsyth or Mentorship Forsyth
- Therapeutic Services Sports Medicine Pathway (N) Introduction to Healthcare Science Essentials of Healthcare Sports Medicine* Internship Forsyth or Mentorship Forsyth

HOSPITALITY AND TOURISM CLUSTER

Culinary Arts Pathway (D, L, S, W) Introduction to Culinary Arts Culinary Arts I Culinary Arts II* Internship Forsyth or Mentorship Forsyth



A = Alliance Academy for Innovation | C = Forsyth Central HS | D = Denmark HS = Forsyth Academy | FV = Forsyth Virtual | L = Lambert HS | N = North Forsyth HS th Forsyth HS | W = West Forsyth HS | C/STEM = STEM Academy @ Forsyth Central HS S/IB = International Baccalaureate @ South Forsyth HS

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2019-20

- Hospitality, Recreation and Tourism Pathway (A) Marketing Principles Hospitality, Recreation and Tourism Essentials Hospitality, Recreation and Tourism Management* Internship Forsyth or Mentorship Forsyth
- Sports and Entertainment Marketing Pathway (C, D, FV, L, N, S, W) Marketing Principles Introduction to Sports & Entertainment Marketing Advanced Sports & Entertainment Marketing* Internship Forsyth or Mentorship Forsyth

HUMAN SERVICES CLUSTER

- Personal Care Services Cosmetology Pathway (C, W) Introduction to Personal Care Services Cosmetology Services II Cosmetology Services III* Internship Forsyth or Mentorship Forsyth
- Food and Nutrition Pathway (C, L, N, W) Food, Nutrition & Wellness Food for Life Food Science* Internship Forsyth or Mentorship Forsyth

INFORMATION TECHNOLOGY CLUSTER

- Computer Science Pathway (C, D, FV, L, N, S, W) Introduction to Digital Technology Computer Science Principles or AP Computer Science **Principles** AP Computer Science* Internship Forsyth or Mentorship Forsyth
- Cybersecurity Pathway (A) Introduction to Digital Technology Introduction to Cybersecurity Advanced Cybersecurity* Internship Forsyth or Mentorship Forsyth

Game Design Pathway (A. FV) Introduction to Digital Technology Computer Science Principles or AP Computer Science **Principles** Game Design: Animation and Simulation* Internship Forsyth or Mentorship Forsyth

- Internet of Things Pathway (N) Introduction to Digital Technology Computer Science Principles or AP Computer Science **Principles Embedded Computing*** Internship Forsyth or Mentorship Forsyth
- Programming Pathway (L, S) Introduction to Digital Technology Computer Science Principles Programming, Games, Apps, and Society* Internship Forsyth or Mentorship Forsyth
- Web Development Pathway (D, FV, N, W) Introduction to Digital Technology Computer Science Principles Web Development* Internship Forsyth or Mentorship Forsyth

LAW. PUBLIC SAFETY. CORRECTIONS & SECURITY CLUSTER

- Firefighting Pathway (A) Introduction to Law, Public Safety, Corrections and Security Essentials of Fire and Emergency Services Applications of Firefighting* Internship Forsyth or Mentorship Forsyth
- Law Enforcement/Criminal Investigations Pathway (A) Introduction to Law, Public Safety, Corrections and Security Criminal Justice Essentials Criminal Investigations* Internship Forsyth or Mentorship Forsyth



ademy for Innovation | C = Forsyth Central HS | D = Denmark HS
emy | FV = Forsyth Virtual | L = Lambert HS | N = North Forsyth HS
W = West Forsyth HS | C/STEM = STEM Academy @ Forsyth Central HS
IB = International Baccalaureate @ South Forsyth HS

To fulfill state pathway requirements, students must complete the sequences of courses shown and take an end-of-pathway assessment when available.

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High School Career Pathways

2019-20

Legal Services/Applications of Law Pathway (A) Introduction to Law, Public Safety, Corrections and Security **Essentials of Legal Services** Applications of Law* Internship Forsyth or Mentorship Forsyth

MANUFACTURING CLUSTER

Manufacturing Pathway (D, S) Foundations of Manufacturing and Materials Science Robotics and Automated Systems Production Enterprises* Internship Forsyth or Mentorship Forsyth

Mechatronics Pathway (A) Introduction to Mechatronics AC Theory, Electric Motors, and Hydraulic Systems Semiconductors, Mechanical Systems, and Pump and Piping Systems* Internship Forsyth or Mentorship Forsyth

MARKETING CLUSTER

Fashion, Merchandising and Retail Management Pathway (D, L, S, W)

Marketing Principles Fashion, Merchandising, and Retailing Essentials Advanced Fashion, Merchandising, and Retailing* Internship Forsyth or Mentorship Forsyth

✓ Marketing Communications and Promotions Pathway (C, S)

Marketing Principles Promotion and Professional Sales Marketing Communications Essentials* Internship Forsyth or Mentorship Forsyth Marketing & Management Pathway (C, D, FA, FV, L, N,

Marketing Principles Marketing and Entrepreneurship Marketing Management* Internship Forsyth or Mentorship Forsyth

STEM - SCIENCE, TECHNOLOGY. ENGINEERING & MATHEMATICS CLUSTER

Engineering and Technology Pathway (C/STEM, D, L, N, S, W) Foundations of Engineering and Technology **Engineering Concepts Engineering Applications*** Internship Forsyth or Mentorship Forsyth

TRANSPORTATION, DISTRIBUTION, & LOGISTICS CLUSTER

Aerospace - Aviation Maintenance (A) Fundamentals of Aerospace Aviation Maintenance I Aviation Maintenance II* Internship Forsyth or Mentorship Forsyth

Aerospace - Flight Operations (A) Fundamentals of Aerospace Flight Operations I Flight Operations II* Internship Forsyth or Mentorship Forsyth

Distribution & Logistics (A) Logistics Fundamentals **Logistics Operations** Materials Management* Internship Forsyth or Mentorship Forsyth



A = Statistics Academy | FV = Forsyth Virtual | L = Lambert HS | N = North Forsyth HS th Forsyth HS | W = West Forsyth HS | C/STEM = STEM Academy @ Forsyth Central HS S/IB = International Baccalaureate @ South Forsyth HS

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High School Career Pathways

2019-20

TRANSPORTATION, DISTRIBUTION, & LOGISTICS CLUSTER

- ✓ Aerospace Aviation Maintenance (A) **Fundamentals of Aerospace** Aviation Maintenance I Aviation Maintenance II* Internship Forsyth or Mentorship Forsyth
- Aerospace Flight Operations (A) Fundamentals of Aerospace Flight Operations I Flight Operations II* Internship Forsyth or Mentorship Forsyth
- Distribution & Logistics (A) **Logistics Fundamentals Logistics Operations** Materials Management* Internship Forsyth or Mentorship Forsyth
- Automotive Technology Pathway (C) General Automotive Technology 1 General Automotive Technology 2 General Automotive Technology 3* Advanced Automotive Technology 4 Advanced Automotive Technology 5 Advanced Automotive Technology 6* Automotive Service Technology Internship 1 Automotive Service Technology Internship 2 Automotive Service Technology Internship 3

CAREER-RELATED DUAL ENROLLMENT OPTIONS

Accounting Air Conditioning Technology **Automotive Collision Repair Automotive Technology Building Automation Systems Business Management/Technology** Construction Management/Carpentry Cosmetology Criminal Justice Technology **Culinary Arts** Design and Media Production Technology Diesel Equipment Technology **Drafting Technology** Early Childhood Care and Education **Electrical Systems Technology Engineering Technology** Horticulture Industrial Systems Technology Interiors Machine Tool Technology Marine Engine Technology Mechatronics Technology **Medical Assisting** Motorsports Vehicle Technology Nurse Aide Paramedicine Pharmacy Technology Phlebotomy

Precision Machining and Manufacturing

Welding and Joining Technology Wireless Engineering Technology

MANY OTHER PROGRAM AREAS AVAILABLE!





To fulfill state pathway requirements, students must complete the sequences of courses shown and take an end-of-pathway assessment when available

e your school counselor or Career Development Coordin for more information or visit www.forsyth.k12.ga.us/ctae





This pathway is designed to introduce students to the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products. This course introduces scientific principles applied to the animal industry; covers reproduction, production technology, processing, and distribution of agricultural animal products. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

PATHWAY COURSES

- Basic Agriculture Science
- Animal Science Technology and Biotechnology
- Agribusiness Management and Leadership

RECOMMENDED COURSES

- Biology
- Business Management
- Computer Applications
- Economics
- Environmental Science

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Associates in Science
- Business Management

COLLEGES/UNIVERSITIES

- Bachelor of Science, Agricultural Business
- Bachelor of Science, Agricultural Education
- Bachelor of Science, Plant Science
- Master and PhD in all areas

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FFA



AGRICULTURE

AGRICULTURE LEADERSHIP IN ANIMAL PRODUCTION PATHWAY

TOP CAREERS CHOICES

Agricultural Inspectors

\$40,900 annual salary Bachelor's Degree 20 annual average openings in Georgia

Animal Scientists

\$73,400 annual salary Bachelor's Degree 1 annual average openings in Georgia

First-Line Supervisors of Animal Husbandry and Animal Care Workers

\$45,200 annual salary High School Diploma 40 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Agricultural Inspectors

Agricultural Managers

Agricultural Science Postsecondary Teachers

Agricultural Technicians

Butchers and Meat Cutters

Buyers and Purchasing Agents

Chemical Farm and Ranch Managers

Food Cooking Machine Operators

Graders and Sorters

Slaughters and Meat Packers

Technicians



A career in plant science offers a variety of job opportunities in the fields of education, research, golf and sports turf, landscape design, parks and gardens, public service, production management, and sales and marketing. Employment is expected to increase in response to the increasing demand for both products and services by commercial producers, landscape contractors, turf managers and the general public. New avenues of research in biotechnology to develop plant and food crops that require less fertilizer, fewer pesticides and herbicides, and less water will also increase the demand for careers in plant science and horticulture.

PATHWAY COURSES

- · Basic Agricultural Science and Technologies
- · General Horticulture Science and Plant Science
- · Agribusiness Management and Leadership

RECOMMENDED COURSES

- Biology
- · Business Management
- · Computer Applications
- Economics
- Environmental Science

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Associates in Science
- · Business Management
- Horticulture Technology

COLLEGES/UNIVERSITIES

- Bachelor of Science, Agricultural Business
- · Bachelor of Science, Agricultural Education
- · Bachelor of Science, Plant Science
- · Master and PhD in all areas

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FFA





AGRICULTURE LEADERSHIP IN HORTICULTURE PATHWAY

TOP CAREERS CHOICES

Interior-Scape Designers

\$65,000-\$70,000 annual salary B.S. Degree or higher

Landscape Designers

\$42,000-\$75,000 annual salary No degree required. B.S. recommended

Garden Center Owner/Operator

Salaries vary based on scope of business No degree required.

Golf Course Manager/Athletic Field Manager \$64,000-\$84,000 annual salary **Bachelors Degree**

ADDITIONAL CAREER CHOICES

Chemical, Equipment, Plants or Seed Sales

Commercial Landscape Designers

Cooperative Extension Agent

Farmer

Fruit and Orchard Production

Garden Writers

Greenhouse

Horticulture Teacher

Irrigation System Design and Installation

Landscape, Nursery, Orchard, Vegetable Farm

Marketing for Gardens or Green Industry

Organic Vegetable Production

Park Design and Maintenance

Production Marketing

Public and Private Garden Curators

Public Gardens

Public Relations

Sod Production and Sales

Research Scientist or Plant Breeding

Wetland Reclamation

Zoo or City Government Horticulturist



Source: GADOE Plans of Study

http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Georgia-Career-Pathways-New-Rule.aspx



Companion animals are a large part of the animal care industry. Veterinarians diagnose, treat, and research medical conditions and diseases of pets, livestock, and other animals. Veterinary technologists and technicians perform medical tests under the supervision of a licensed veterinarian to help diagnose the illnesses and injuries of animals. Veterinary assistants and laboratory animal caretakers look after animals in laboratories, animal hospitals, and clinics. They care for the well-being of animals by performing routine tasks under the supervision of veterinarians, scientists, and veterinary technologists and technicians. Animal care and service workers feed, water, groom, bathe, and exercise pets and other nonfarm animals. Veterinary medicine has advanced considerably, and many of the veterinary services offered today are comparable to health care for humans, including cancer treatments and kidney transplants.

PATHWAY COURSES

- · Basic Agriculture Science
- Animal Science and Biotechnology
- Small Animal Care

RECOMMENDED COURSES

- Biology
- Business Management
- Computer Applications
- Economics
- Environmental Science

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

Associates in Science

COLLEGES/UNIVERSITIES

- · Bachelor of Science, Agricultural Business
- · Bachelor of Science, Agricultural Education
- · Bachelor of Science, Animal Science
- Master and PHD in all areas

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FFA



COMPANION ANIMAL SYSTEMS PATHWAY

TOP CAREERS CHOICES

Nonfarm Animal Caretakers

High School Diploma \$19,100 annual salary 160 annual average openings in Georgia

Veterinarians

Professional Degree \$76,600 annual salary 10 annual average openings in Georgia

Veterinary Assistants

High School Diploma \$21,700 annual salary

ADDITIONAL CAREER CHOICES

Agricultural Animals

Agricultural Inspectors

Agriculture Teachers

Animal Breeders

Animal Care and Service Workers

Animal Scientists

Biological Technicians

Nonfarm Animal Caretakers

Ranch Managers

Veterinarians

Veterinary Assistants

Veterinary Technicians





Environmental engineers research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include agricultural waste treatment, site remediation, or pollution control technology. They use the principles of engineering, soil science, biology, and chemistry to develop solutions to environmental problems.

PATHWAY COURSES

- Basic Agriculture Science
- Environmental Science and Stewardship
- Sustainable Agriculture

RECOMMENDED COURSES

- Biology
- Chemistry
- Economics
- Environmental Science
- · Foundations of Engineering and Technology
- · Intro to Business and Technology
- Social Studies
- Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Agriculture Chemicals
- Crop Science
- Horticulture
- Landscape Specialist
- · Marketing in Agriculture
- Plant Production
- Soil Management
- Sustainable Urban Agriculture

COLLEGES/UNIVERSITIES

- Agroecology
- Agronomy
- Environmental Studies
- Horticulture
- Natural Resources Management
- Plant Science
- Soil and Land Resources
- Sustainable Agriculture and Farming Systems
- Sustainable Food and Bioenergy Systems
- Water, Wetlands, and Marine Resources Management

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FFA

AGRICULTURE

ENVIRONMENTAL AGRICULTURE SYSTEMS PATHWAY

TOP CAREERS CHOICES

Agricultural Science Professor

\$69,300 annual salary Bachelor's Degree 450 annual average openings in Georgia

Agricultural Science Professor

\$96,000 average annual salary Advanced Degree

Conservation Scientist

\$65,130 average annual salary BS Degree

Environmental Engineer

\$86,000 average annual salary BS Degree

Farmers/Ranchers/Agricultural Managers

\$67,000 average annual salary Associate Degree or Higher

Park Naturalist

\$50,000-\$65,000 annual salary Associate Degree

ADDITIONAL CAREER CHOICES

Agricultural Chemist

Agriculture Policymaker

Agriculture Technician

Environmental Economist

Food Scientist

Greenhouse Technician

Natural Resource Manager





A career in landscape management offers a variety of job opportunities in the fields of education, research, golf and sports turf, landscape design, parks and gardens, public service, production management, and sales and marketing. Some jobs available include landscape designer, greenhouse manager, golf course superintendent, plant breeder, florist, agricultural chemical researcher and garden center owner. Those who are interested in this field should be able to carry out projects and work independently, have a commitment to quality and customer service, and have an appreciation of our natural environment and have good interpersonal skills.

PATHWAY COURSES

- · Basic Agriculture Science
- General Horticulture and Plant Science
- Turf Production and Management

RECOMMENDED COURSES

- Chemistry
- Economics
- Environmental Science
- · Foundations of Engineering and Technology
- Intro to Business and Technology
- Social Studies
- · Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Arboriculture
- Greenhouse Operation
- Horticulture
- Landscape Equipment Operation
- Landscape Specialist
- Lawn and Landscape Maintenance
- · Marketing in Agriculture
- Plant Production
- Soil Management
- Sustainable Urban Agriculture
- · Turf Grass Maintenance

COLLEGES/UNIVERSITIES

- · Agricultural Engineering
- Arboriculture
- · Environmental Studies
- · Golf Course Management
- Horticulture
- Landscape Design
- Natural Resources Management
- Plant Science
- Soil and Land Resources
- Turf Grass Science

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FFA

AGRICULTURE

LANDSCAPE MANAGEMENT SYSTEMS PATHWAY

TOP CAREERS CHOICES

Agricultural Science Professor

\$96,000 average annual salary Advanced Degree

Arborist

\$40,000 - \$60,000 annual salary Associate Degree or Higher

Forest Nursery Supervisor

\$57,000 average annual salary Bachelor's Degree

Golf Course Management

\$45,000 - \$90,000 annual salary Bachelor's Degree

Landscape Architect

\$63,000 average annual salary Bachelor's Degree

Landscape and Nursery Worker

\$30,000 average annual salary High School Diploma

ADDITIONAL CAREER CHOICES

Agriculture Policymaker

Agriculture Technician

Construction Manager

Environmental Compliance Inspector

Estate Caretaker

Greenhouse Technician

Master Gardener

Natural Resource Manager

Pesticide Handler



Source: GADOE Plans of Study



The agriculture education courses in veterinary science 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 col-lege 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 eduation on the job.

PATHWAY COURSES

- Basic Agricultural Science
- · Animal Science and Biotechnology
- · Veterinary Science

RECOMMENDED COURSES

- Biology
- Business Management
- Computer Applications
- Economics
- Environmental Science

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

Associates in Science

COLLEGES/UNIVERSITIES

- Bachelor of Science, Agricultural Education
- · Bachelor of Science, Agricultural Science
- Bachelor of Science, Animal Science
- Master and PhD in all areas

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FFA

AGRICULTURE



TOP CAREERS CHOICES

Animal Physical Therapist

Associates Degree or higher \$28,000-\$30,000 annual salary

Veterinarian

Doctoral or Professional Degree \$82,040 per year starting salary

Veterinary Tech

Doctoral or Professional Degree \$82,040 per year starting salary

ADDITIONAL CAREER CHOICES

Animal Welfare Specialist

Animal Care Specialist

Animal Sales

Artificial Insemination Technician

Breed Analyst

Breed Association Sales/Promotion

Cell Culture Specialist

Companion Animal Breeder

Companion Animal Nutrition Specialist

Companion Animal Store Manager

Companion Animal Therapy Specialist

Communication and Media Specialist

Dairy Unit Herdsman/Manager

Embryo Transfer Technician

Equipment Sales Representative

Equitation Instructor

Extension Educator





Audio and Video Technology and Film is a pathway that teaches all aspects of video production from pre-production, production, and postproduction, including theory and practical application. Students will have the opportunity to participate in various types of broadcast/video production from events and commercials to mini-movies and documentaries.

PATHWAY COURSES

- · Audio and Video Technology and Film I
- · Audio and Video Technology and Film II
- Audio and Video Technology and Film III

RECOMMENDED COURSES

- Business Communications
- Computer Applications
- Intro to Animation and 3D Design
- Marketing Principles
- · Web Page Design
- · Work-Based Learning
- World Language
- Yearbook/Journalism

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Technical Studies
- Telecommunications Arts
- · Georgia Film Academy

COLLEGES/UNIVERSITIES

- Broadcast Design
- · Journalism and Broadcasting
- Mass Communications
- Mass Media/Arts
- Public Relations
- Video/Digital

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

ARTS, AUDIO-VIDEO TECHNOLOGY AND COMMUNICATIONS

AUDIO/VIDEO TECHNOLOGY AND FILM PATHWAY

TOP CAREERS CHOICES

Audio and Video Equipment Technician

Long-Term On-the-Job Training needed \$40,498 annual salary 80 annual average openings in Georgia

Broadcast News Analyst

Bachelor Degree needed \$57,845 annual salary 20 annual average openings in Georgia

Broadcast Technician

Associate Degree needed \$35,443 annual salary 50 annual average openings in Georgia

Radio and Television Announcer

Long-Term On-the-Job Training needed \$34,445 annual salary 50 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Audio-Video Operator

Broadcast Field Supervisor

Broadcast Technician

Camera Operator

Chief Engineer

Control Room Technician

Editor

Journalist

Radio and TV Announcer

Reporter

Sound Technician

Station Manager

Transmission Engineer





The Animation and Digital Media Pathway is a series of courses that teach all aspects of 2D and 3D animation and digital design. Students will gain knowledge in animation history, basic modeling, and fundamentals of motion while working to incorporate effective sound and lighting techniques, as well as 3-D space morphing into their animated projects. Working independently, as well as on small production teams, students will learn to manage the entire production pipeline for 3-D projects. Students in the Animation and Digital Media Pathway will have the opportunity become effective and efficient multi-skilled animators as they develop a thorough working knowledge of the animation opportunities available in a rapidly growing career field.

PATHWAY COURSES

- Introduction to Graphics and Design
- Principles and Concepts of Animation
- · Advanced Animation, Game, and App Design

RECOMMENDED COURSES

- Business Communications
- Computer Applications
- Intro to Animation and 3D Design
- Marketing Principles
- · Web Page Design
- Work-Based Learning
- World Language
- Yearbook/Journalism

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

BACHELOR'S DEGREE

- · Animation School Varying Certificates available
- Intern experience

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

ARTS, AUDIO-VIDEO TECHNOLOGY
AND COMMUNICATIONS

ANIMATION AND DIGITAL MEDIA PATHWAY

TOP CAREERS CHOICES

Camera Operators (Television, Video, Motion Picture)

2015 Wage: \$59,600

Composing Artist 2015 Wage: \$65,000

Multimedia Artist and Animators

2014 Wage: \$51,800

Forensic Animator

2015 Wage: \$20-\$100 per hour depending on experience

Mathematical Modeler 2015 Wage: \$80,000

Storyboard Artist

2015 Wage: \$55,000

3D Medical Animator 2015 Wage: \$60,000

3D Modeler

2015 Wage: \$75,000

ADDITIONAL CAREER CHOICES

Animation Producers

Artistic Director

Graphic Designer

Film and Video Editors

3D Animator

TV Director

TV Producer



Graphic Design is communication through visual means. This can be achieved either by Artistic or Printing means. The Graphic Design pathway starts with an introduction to the graphic design principals while exploring the techniques of creative problem solving. Graphic Design and Production explores the various printing techniques including screenprinting and offset printing. The third and final class Advance Graphic Design or Production the student will choose a to specialize in either Graphic Design or Graphic Production focusing on the demand and real world techniques of the specialty.

PATHWAY COURSES

- · Introduction to Graphics and Design
- · Graphic Design and Production
- · Advanced Graphic Design

RECOMMENDED COURSES

- · Computer Applications
- Fine Arts
- Marketing
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Graphic Design
- Prepress and Production

COLLEGES/UNIVERSITIES

- · Graphic Design
- Industrial Design
- Printmaking
- · Product Design

See www.GAfutures.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

ARTS, AUDIO-VIDEO TECHNOLOGY **AND COMMUNICATIONS**

GRAPHIC DESIGN PATHWAY

TOP CAREERS CHOICES

Art Director

College Degree needed plus 5-7 years experience \$57,000 annual salary

Commercial and Industrial Designers

Bachelor's Degree \$54,900 annual salary 30 annual average openings in Georgia

Creative Designer

College Degree needed plus 10+ years experience \$87,000 annual salary

Graphic Designer

Bachelor's Degree \$49,900 annual salary 390 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Advertising and Promotions Managers

Art Directors

Fashion Design

Film and Video Editors

Illustration

Interior Designers

Multimedia Artist and Animators

Photography

3D Animation





Entrepreneurs, innovators, and small businesses play a key role in Georgia's economy. Business professionals may be managers, owners, accountants, economists, administrators, or analysts. These individuals must possess excellent communication skills and be able to establish working relationships with many different people.

PATHWAY COURSES

- · Introduction to Business and Technology
- · Legal Environment of Business
- Entrepreneurship

RECOMMENDED COURSES

- Any Business and Computer Science Course
- Marketing Principles
- · Work-Based Learning
- World Language
- Yearbook/Journalism

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Business Management
- · Business Office Technology
- Entrepreneurship
- · Hospitality Industry
- Human Resources Associate
- · Management and Supervisory Development
- Office Administration

COLLEGES/UNIVERSITIES

- Business
- Business Administration

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA
- SkillsUSA

BUSINESS MANAGEMENT AND ADMINISTRATION



TOP CAREERS CHOICES

Advertising and Promotion Manager

Bachelor Degree needed \$76,898 annual salary 60 annual average openings in Georgia

Chief Executive

Bachelor Degree plus work experience needed \$155,168 annual salary 850 annual average openings in Georgia

Employment, Recruitment, and **Placement Specialist**

Bachelor Degree needed \$50,877 annual salary 440 annual average openings in Georgia

Social and Community Service Manager

Bachelor Degree needed \$59,904 annual salary 100 annual average openings in Georgia

Training and Development Manager

Bachelor Degree needed \$79,498 annual salary 60 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Appraiser and Assessor of Real Estate Accountant and Auditor

Administrator

Bank Teller

Business Educator

Chief Executive Officer

Claims Adjuster

Claims Examiner

Computer Support Specialist

Computer Systems Analyst

Cost Estimator

Database Administrator

Entrepreneur

Financial Analyst

Financial Manager

Investigator

Network and Computer System

Paralegal and Legal Assistant

Personal Financial Advisor

Sales Manager

Tax Prepare



Source: GADOE Plans of Study



Students will 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 terminating employees. Throughout the third course, students will be introduced to the Human Resource Management role by following the life cycle of an employee from organizational entry to exit. Upon mastery of the standards in this pathway, students should be prepared to pass an End of Pathway assessment in this career area.

PATHWAY COURSES

- · Introduction to Business and Technology
- · Legal Environment of Business
- Human Resources Principles

RECOMMENDED COURSES

- Economics
- Entrepreneurship
- Human Resource Principles
- · Intro to Business and Technology and Legal Environment of Business as Prerequisite

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

Business Management degree at most colleges and universities

- Associate degree
- Bachelor's degree
- · Certificate program
- Doctoral degree
- · Master's degree
- · Professional Certifications
 - GPHR (Global Professional in HR)
 - PRH (Professional in HR)
 - SPHR (Senior Professional in HR)
- Professional Membership in Society for Human Resource Management encouraged

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA

FORSYTH COUNTY SCHOOLS 2019-2020 Career Planner





HUMAN RESOURCES MANAGEMENT PATHWAY

TOP CAREERS CHOICES

Human Resources Managers

2012 Median Pay \$99,720 per year Entry-Level Education Bachelor's degree Work Experience in a Related Occupation 5+ years Job Outlook 2012-22, 13% growth

ADDITIONAL 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



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

- Examining the Teaching Profession
- Contemporary Issues in Education
- Teaching as a Profession Practicum

RECOMMENDED COURSES

- · Any Education Course
- · World Language
- Human Growth and Development
- Psychology
- · Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- CDA Prep
- Child Care Assistant and/or Child Care Manager
- Child Development Associate I and/or II
- Child Development Specialist
- Early Childhood Care and Education Basics
- Early Childhood Care and Education Program Administration
- Early Childhood Education or Exceptionalities
- · Education of the Gifted
- Infant-Toddler Care Specialist

COLLEGES/UNIVERSITIES

- · Adult, Art, Music or Special Education
- · Career and Technical Education
- Early Childhood Education
- · Education of the Gifted
- English, Math, Science or Social Studies Education
- Family and Consumer Sciences Education
- · Health and Physical Education
- Human Resource and Organizational Development
- Middle School Education
- · Professional School Counseling
- School Psychology
- Speech Communication
- World Language Education

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FCCLA
- FEA

EDUCATION AND TRAINING

TEACHING AS A PROFESSION PATHWAY

TOP CAREERS CHOICES

Middle School Special Education Teacher

Bachelor Degree needed \$46,891 annual salary 230 annual average openings in Georgia

Post-Secondary Education Administrator

Bachelor Degree plus work experience needed \$81,328 annual salary 160 annual average openings in Georgia

Post-Secondary Vocational Education Teacher

Bachelor Degree plus work experience needed \$45,386 annual salary 370 annual average openings in Georgia

Secondary School Teacher

Bachelor Degree needed \$49,956 annual salary 1,360 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Administration

Adult Educator

After-School Program Supervisor

Associate Teacher

Coach

County Extension Agent

Education Evaluator

Educational and Teacher Aide

Elementary School Teacher

High School Teacher

Media Specialist

Middle School Teacher

Post-Secondary Vocational Education

Recreation Attendant

School Administration

Social Services Aide

Special Education Teacher

Teacher



Source: GADOE Plans of Study



Energy is a diverse field with many job opportunities. There are many people who help generate energy, transport it and connect energy to the things we use every day. There are also individuals creating new methods of energy generation. Working in energy can mean working for utilities, for gas and oil companies, for government and research groups, for energy education or environmental regulation agencies, for nonprofit energy awareness and conservation organizations or for many other energy related agencies.

PATHWAY COURSES

- Foundations of Energy and Power Technologies
- · Energy and Power: Technology
- Appropriate and Alternative Energy Technologies

RECOMMENDED COURSES

- Advanced Math
- Chemistry
- · Introduction to Digital Technology
- Introduction to Engineering and Technology
- Introduction to Mechatronics
- Physics

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- 4-Year Universities/Colleges
- 2-Year Colleges
- Military
- On-the-Job Training
- Special Purpose Schools
- State Registered Apprenticeships
- Technical Colleges

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

ENERGY



TOP CAREERS CHOICES

Electrical Engineer

Bachelor's Degree \$90,445 annual salary

Electrical Power-Life Installers and Repairs

Some post-secondary, no degree required \$48,355 annual salary

Industrial Production Manager

Bachelor's Degree \$96,979 annual salary

ADDITIONAL CAREER CHOICES

Electricians

Electronics Technicians

Engineering Technicians

Equipment, Cable, Line Repairers/Installers

Geologists

Hazardous Waste Technicians

Meteorologists

Mining Engineers

Petroleum Engineers

Pipefitters/ Pipe Layers

Power Plant Operators

Telecommunication Technicians

Value/Regulator Repairers



FINANCE



The Financial Management Services pathway courses are designed to provide students with knowledge that can be applied in secondary education, the work place, and in their personal lives. During times of financial crisis it is imperative that students learn the importance of sound financial decision-making.

PATHWAY COURSES

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

RECOMMENDED COURSES

- Any Business and Computer Science Course
- Marketing Principles
- · Work-Based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Accounting
- Banking and Finance
- · Business Administration Technology
- Business Logistics
- Business Studies
- Business Technology
- Office Accounting Specialist

COLLEGES/UNIVERSITIES

- Accounting
- · Actuarial Sciences
- Business Administration
- Economics
- Finance
- Insurance

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA
- SkillsUSA



TOP CAREERS CHOICES

Actuary

Bachelor Degree needed \$84,822 annual salary 30 annual average openings in Georgia

Brokerage Clerk

Moderate-Term On-the-Job Training needed \$30,597 annual salary 30 annual average openings in Georgia

Financial Analyst

Bachelor Degree needed \$80,787 annual salary 210 annual average openings in Georgia

Real Estate Sales Agent

Post-Secondary Vocational Award needed \$38,334 annual salary 500 annual average openings in Georgia

Securities/Commodities Sales

Bachelor Degree needed \$81,536 annual salary 100 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Bank Teller and Manager

Cash Manager

Chief Financial Officer

Controller

Corporate Finance Professional

Credit Analyst

Financial Counselor

Financial Manager

Insurance Agent and Broker

Insurance Manager

Investment Banker

Loan Officer

Personal Financial Advisor

Personal Wealth Manager

Real Estate Agents and Broker

Stock Broker



Source: GADOE Plans of Study



Strong growth in accounting jobs throughout the next decade is expected to occur due to the increased growth in the number of new businesses and stricter accounting and auditing regulations.

PATHWAY COURSES

- · Introduction to Business and Technology
- Financial Literacy
- · Principles of Accounting II

RECOMMENDED COURSES

- · Any business and computer science course
- Marketing Principles
- · Work-Based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Accounting
- · Business Technology
- · Medical Administrative Assistant
- Office Accounting Specialist

COLLEGES/UNIVERSITIES

- Accounting
- · Business Education
- Business Management
- Economics
- Finance
- Marketing and Real Estate

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA

FINANCE



TOP CAREERS CHOICES

Accountants and Auditors

Bachelor Degree needed \$54,330 annual salary 1,090 annual average openings in Georgia

Bookkeeping/Accounting/Auditing Clerks

Moderate-Term On-the-Job Training needed \$29,619 annual salary 1,490 annual average openings in Georgia

Budget Analysts

Bachelor Degree needed \$58,698 annual salary 30 annual average openings in Georgia

Tax Examiner, Collector and Revenue Agent

Bachelor Degree needed \$43,909 annual salary 70 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Auditing Clerk

Auditor

Bookkeeper

Budget Analyst

Certified Public Accountant

Corporate Accountant

Entrepreneur

FBI Agent

Financial Advisor

Financial Analyst

Forensic Accountant

Government Accountant

Income Tax Professional

Managerial Accountant

Non-Profit Accountant

Teacher



Source: GADOE Plans of Study



The Financial Service Pathway uses project based instruction to introduce students to the basics of the banking system, bank operating procedures, negotiable instruments, and the deposit and credit functions of banks. Methods used for measuring the financial performance of banks are analyzed. Current issues and future trends in banking are examined. Students explore the major functions of bank employees by completing a flow-of-work simulation. Students formulate business and individual investment decisions by comparing and contrasting a variety of investment options.

PATHWAY COURSES

- · Introduction to Business and Technology
- · Financial Literacy
- · Banking, Investing and Insurance

RECOMMENDED COURSES

- Accounting 1 and 2
- Business Foundation and Business Management
- Desktop Publishing
- Financial Management
- Marketing 1 and 2
- Personal Financial Literacy
- Personal and Business Law 1 and 2
- · Web Design

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES, COLLEGES/UNIVERSITIES

- Accounting
- Business Administration-Financial Analysis
- Business Technology
- Consumer and Family Financial Services
- Disaster Relief Insurance Claim Adjuster
- · Financial Planning
- Office Accounting Specialist

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA

FINANCE

FINANCIAL SERVICES PATHWAY

TOP CAREERS CHOICES

Auditor

Bachelor Degree needed \$73,910 annual salary

Insurance Sales Agent

1-2 years Post-Secondary training needed \$62,790 annual salary

Claims Adjuster

Post-Secondary training plus on-the-job training needed \$63,220 annual salary

Accountant

Bachelor Degree needed \$73,910 annual salary

ADDITIONAL CAREER CHOICES

Business Teacher

Financial Project Specialist

Financial Planner

Research

Sales and Service





The program's focus is reflected in its mission statement, "To Motivate Young People to be Better Citizens." It prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. Army JROTC is a stimulus for promoting graduation from high school, and it provides instruction and rewarding opportunities that will benefit the student, community, and nation.

PATHWAY COURSES

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

RECOMMENDED COURSES

- Any CTAE Course
- Modern US Military History
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- Academy Appointments
- Active Reserve and National Guard options available
- Armed Forces (Advanced Placement Enlistment Opportunities) Army, Air Force, Marines, Navy, Coast Guard
- ROTC (Scholarships Available)

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- Academic Team
- Color Guard
- CTI
- Drill Team
- Raiders
- · Rifle Team

GOVERNMENT AND PUBLIC ADMINISTRATION

JROTC MARINES PATHWAY

TOP CAREERS CHOICES

Students enrolled in JROTC programs may find high-demand, high-wage, and high-skilled occupations in the public sector at www.occsupplydemand.org or if they plan on a career in the military they will find "Military Occupations" listed on GACollege 411 under the Career Planning Tab.

ADDITIONAL CAREER CHOICES

Administration

Air Traffic Controller

Aviation Ordinance

Broadcast Specialist

Computer

Construction Equipment Repairer

Criminal Investigation

Equipment Repair

Finance

Flight Crew

Human Resource

Information Technology

Intelligence

Lawyer

Military Police

Missile Fire Control Operator

Multi Media Illustrator

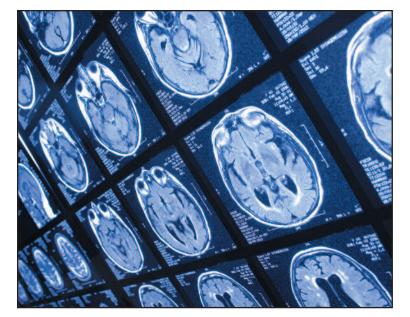
Naval Aviation (Pilot)

Photographer

Supply Logistic

Transportation Management





The Biomedical Research and Development pathway provides an understanding of human medicine through topics such as physiology, genetics, microbiology and public health. Courses will provide an introduction to teamwork and communication practices, organizational, critical-thinking and problem-solving skills. Areas of instruction include an understanding of the processes, structures and interactions of the human body, as well as the prevention, diagnosis and treatment of disease.

PATHWAY COURSES

- Introduction to Healthcare Science
- · Essentials of Biotechnology
- · Applications of Biotechnology
- Biotechnology Internship/Independent Research

RECOMMENDED COURSES

- · AP Chemistry or AP Biology
- AP Statistics
- Computer Science Courses
- · Honors or Pre-AP Biology

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Associates of Science in Nursing
- Biochemistry
- Biomedical Sciences
- Biotechnology
- Dental Hygiene
- Epidemiology
- Health and Administration
- · Healthcare fields (Pre-nursing, pre-vet, pre-med)
- Physical Therapy Assistant
- Public Health
- Radiologic Technology
- Surgical Technology

COLLEGES/UNIVERSITIES

See www.GAcollege411.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- HOSA

HEALTH SCIENCE

BIOTECHNOLOGY RESEARCH AND DEVELOPMENT PATHWAY

CAREER CHOICES

Biological Consultant

Biological or Medical Illustrator

Biological Photographer

Conservation Warden

Crime Lab Technician

Dental Hygienist

Dietician Nurse

Emergency Medical Technician

Farm Manager

Field Biologist or Ecologist

Food and Drug Inspector

Forensic Service Technician

Forest Ranger

Game Manager

Human Resources Staff

Industrial Hygienist or Process Manager

Laboratory Technician

Licensed Practical Nurse

Meat and Poultry Food Inspector

Medical Assistant or Records Administrator

Medical Technologist

Medical Writer

Mortician

Museum Educational Staff Member

Museum Exhibit Designer

National or State Park Ranger

Nurse Anesthetist

Nutritionist

Pediatric Nurse

Pest Control Specialist

Pet Shop Owner

Phlebotomist

Primary or Secondary Teacher

Prosthesis-Maker

Public Relations

Radiology Technician

Sales Representative

Science Journalism or Librarian

University Research Assistant

Veterinary Technician

Waste Disposal Engineer

Water Quality Controller

Wildlife Management Specialist

Zoo Assistant

Zoologist



Source: GADOE Plans of Study





A phlebotomist draws blood for testing, verifies the patient's identity, and enters patient information into a database. Persons going into phlebotomy must be comfortable with blood, needles, and test tubes. Work location typically is a hospital, lab, or blood bank setting.

PATHWAY COURSES

- Introduction to Healthcare Science
- Essentials of Healthcare
- Diagnostics Phlebotomy

RECOMMENDED COURSES

- Any Business and Computer Science Course
- Any Science Elective
- Any World Language
- · Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

Training programs are often available at community colleges/ technical schools coupled with clinical experience. Students must pass a certification exam

TECHNICAL COLLEGES

• Phlebotomy Technician

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- HOSA

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HEALTH SCIENCE

PHLEBOTOMY PATHWAY

TOP CAREERS CHOICES

Phlebotomists

Bachelor Degree needed \$46,891 annual salary 230 annual average openings in Georgia

Cardiovascular Technologist and Technicians

Associate's Degree \$51,600 annual salary

Medical Lab Assistants

Associate's Degree \$36,500 annual salary

Skills

Good eye/ hand coordination, pleasant bedside manner, attention to detail Growth rate projected to be 27%, much faster than the average.

ADDITIONAL CAREER CHOICES

Information Nurse Specialists

Medical Lab Assistants

Nuclear Techs

Patient Service Techs (PST)

Physicians

Phlebotomists

Phlebotomy Supervisors

Radiologic Technologists

Registered Nurses

Respiratory Technicians

Other Related Health Science Occupations





Health Information Technology is the application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of healthcare information, data, and knowledge for communication and decision making to improve patient care. Those working in Health IT are skilled professionals who understand both the healthcare and information technology environments. Students with strong technology skills and a strong understanding of medical terminology will find favorable opportunities in this pathway.

PATHWAY COURSES

- Introduction to Healthcare Science
- · Essentials of Health Information Technology
- Applications of Health Information Technology

RECOMMENDED COURSES

- Any Computer Science Course
- Any Healthcare Science Course
- Any World Language
- Human Anatomy/Physiology

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Health Information Management Technology
- Health Information Management Coding
- Health Information Technology Specialist
- Medical Billing Clerk

COLLEGES/UNIVERSITIES

- Computer Science
- Health Informatics
- Health Information Management
- Management Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- HOSA
- FBLA

FORSYTH COUNTY SCHOOLS 2019-2020 Career Planner



HEALTH **INFORMATION TECHNOLOGY PATHWAY**

TOP CAREERS CHOICES

Informatics Nurse Specialists

Bachelor Degree needed \$73,800 annual salary 810 annual average openings in Georgia

Software Developers

Bachelor Degree needed \$86,300 annual salary 340 annual average openings in Georgia

Computer Support Specialists

Some College/No Degree Required \$57,900 annual salary 830 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Computer Programmers

Computer User Support Specialists

Medical Records & Health Information Techs

Medical Secretaries

Medical Transcriptionists





Employment of EMTs and paramedics is expected to grow much faster than average through 2014. Demand for emergency services will increase as a large segment of the population ages and becomes more likely to have medical emergencies. Those certified in EMT-Intermediate and EMT-Paramedic fields will have favorable job prospects. There will also be a demand for part-time, volunteer EMTs and paramedics in rural areas.

PATHWAY COURSES

- Introduction to Healthcare Science
- · Essentials of Healthcare Science
- Emergency Medical Responder

RECOMMENDED COURSES

- World Language
- Human Anatomy/Physiology
- Physics
- Psychology
- · Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Fire Science
- Firefighter EMT

COLLEGES/UNIVERSITIES

• See www.GAfutures.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- HOSA

HEALTH SCIENCE



TOP CAREERS CHOICES

EMT/Paramedic

Post-Secondary Vocational Training needed \$29,328 annual salary 290 annual average openings in Georgia

Fire Fighter

Long-Term On-the-Job Training needed \$33,030 annual salary 500 annual average openings in Georgia

Licensed Practical Nurse

Post-Secondary Vocational Training needed \$33,030 annual salary 960 annual average openings in Georgia

Registered Nurse

Associate Degree needed \$54,787 annual salary 3,340 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Emergency Nurse

EMT and Paramedic

Firefighter

Paramedic Technologist





Sports Medicine is a branch of Health Science devoted to muscu-loskeletal 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

RECOMMENDED COURSES

- Human Anatomy/Physiology
- Internships
- Physics
- Psychology
- Work-based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Associates of Science in Nursing
- Dental Hygiene
- Orthopedic Technology
- Physical Therapist Assistant
- Radiologic Technology
- Surgical Technology

COLLEGES/UNIVERSITIES

- Dentist
- Doctor
- Nurse Practitioner
- Physical Therapist
- · Registered Nurse
- Surgeon

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- HOSA



THERAPEUTIC SERVICES **SPORTS MEDICINE PATHWAY**

TOP CAREERS CHOICES

Athletic Trainer

Bachelor Degree needed \$35,917 annual salary 20 annual average openings in Georgia

Occupational Therapist Aide

Short-Term On-the-Job Training needed \$20,259 annual salary 10 annual average openings in Georgia

Orthotist and Prosthetist

Bachelor Degree needed \$35,464 annual salary 10 annual average openings in Georgia

Physical Therapist

Master Degree needed \$65,042 annual salary 120 annual average openings in Georgia

Physical Therapist Assistant

Associate Degree needed \$40,830 annual salary 90 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Chiropractor

Doctor of Osteopathic Medicine

Doctor of Podiatric Medicine

Massage Therapist

Occupational Therapist

Orthopedic Doctor

Physical Therapy Assistant

Physician's Assistant

Radiologist

Radiologist Technician





The Culinary Arts pathway introduces students to fundamental food preparation terms, concepts, and methods in culinary arts where laboratory practice will parallel class work. Fundamental techniques, skills, and terminology are covered and mastered with an emphasis on basic kitchen and dining room safety, sanitation, equipment maintenance and operation procedures. Courses also provide an overview of the professionalism in the culinary industry and career opportunities leading into a career pathway in culinary arts.

PATHWAY COURSES

- · Introduction to Culinary Arts
- Culinary Arts I
- Culinary Arts II

RECOMMENDED COURSES

- Algebra
- Any Science Elective
- Business Essentials
- Computer Applications
- Entrepreneurship
- World Language (Spanish and French)

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Catering Specialist
- · Culinary Arts (Standard Pathway or Baking & Pastry Pathway)
- Culinary Nutrition Assistant
- · Food and Beverage Director
- Food and Beverage Management
- Food Production Worker I
- Hospitality Management
- · Hotel/Restaurant/Tourism Management
- Prep Cook
- Restaurant Manager

COLLEGES/UNIVERSITIES

- Culinary Arts (Standard Pathway or Baking & Pastry Pathway)
- Food and Beverage Management
- Food Science
- Hospitality Management

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FCCLA

HOSPITALITY AND TOURISM

CULINARY ARTS PATHWAY

TOP CAREERS CHOICES

Chef and Head Cook

Work experience needed \$31,304 annual salary 110 annual average openings in Georgia

Food Services Manager

Work experience needed \$49,860 annual salary 400 annual average openings in Georgia

Pastry Chef

Work experience needed \$34,890 annual salary 130 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Baker

Cake Designer

Caterer

Chocolatier

Culinary Arts Instructor

Dining Room Management

Dining Room Service

Food and Beverage Director

Food Stylist and Photographer

Food Writer and Critic

Hotel Manager

Kitchen Manager

Personal Chef

Research and Development Chef

Restaurant Entrepreneur





Georgia represents the 8th largest tourism economy in the country and the 2nd largest industry in Geor-gia. The Hospitality, Recreation and Tourism Industry consists of the following Lodging, Hotels and Resorts; Conventions, Meetings, Trade Shows and Events; Restaurants and Food Service; Recreation, Attractions, Sporting Events and Parks and Travel, including Air, Rail, Auto and Coach. Since the industry is primarily a s ervice-oriented industry, workers will need good communication skills, and they will have to understand the importance of meeting the needs of individuals.

PATHWAY COURSES

- Marketing Principles
- · Hospitality, Recreation, and Tourism Essentials
- · Hospitality, Recreation, and Tourism Management

RECOMMENDED COURSES

- Advanced Marketing
- · Any business or computer course
- Entrepreneurship
- · Work-Based Learning
- World Languages

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- Adventure Tourism
- Communications
- Culinary
- Hospitality Management
- Hospitality Operations Management
- International Tourism
- · Marketing Management
- · Meetings & Event Planning
- Ski Guide
- Sports Marketing
- See www.GAfutures.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA
- FCCLA

HOSPITALITY AND TOURISM



TOP CAREERS CHOICES

Hotel and Lodging Managers

Bachelor Degree needed \$51,840 per year

Meeting, Convention, Events Planners

High School and on the job training \$47,350 per year 10% increase expected

Public Relations

Bachelors degree \$58,020 per year

Restaurant Manager

High School and on the job training \$50,820 per year

Travel Agent

High School and on the job training \$36,460 per year

ADDITIONAL CAREER CHOICES

Brand Manager

Catering Manager

Communications Specialist

Country Club Marketing and Management

Cruise Director

Customer Account Representative

Economic Development Specialist

Entertainment Marketer

Entrepreneur

Golf Course Marketing and Management

Hotel Management

International Tourism & Hotel Management

Parks and Recreation Management

Purchaser

Real Estate Agent

Recreation and Amusements Marketer

Restaurant Management

Sales Representative

Social Media Marketer

Sports and Entertainment Marketer

Tourism Director

Travel Agent

Travel Blogger

Travel Planner



Source: GADOE Plans of Study





Entertainment is related to film and TV, music, gaming, digital media and sports marketing are huge in Georgia. In addition to basic knowledge and skills in management and entrepreneurship, students in this Pathway will apply their knowledge and skills to this industry in order to master the industry's terminology, market arenas and venues, obtain sponsorships, maintain solid media relations, coordinate and manage campaigns and events, etc. This pathway culminates with an opportunity for students to take the MBA Research "A*S*K Marketing Concepts" end of pathway assessment or the NOCTI "Marketing Education Manager Trainee" end of pathway assessment.

PATHWAY COURSES

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

RECOMMENDED COURSES

- Advanced Marketing
- · Any Business and Computer Science Course
- Entrepreneurship
- · Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Business Administration
- Business Management
- Executive Coaching
- · Expert Sales Management
- Project Management
- · Visual Merchandising

COLLEGES/UNIVERSITIES

- Accounting
- Advertising
- Bridal Consultant
- Business Economics
- Communication
- Graphic Arts
- Hospitality Administration
- Management
- Marketing
- Professional Sales
- Sport Management
- Travel/Tourism

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA

HOSPITALITY AND TOURISM

SPORTS AND ENTERTAINMENT MARKETING PATHWAY

TOP CAREERS CHOICES

Marketing Manager

Bachelor Degree needed \$94,307 annual salary 310 annual average openings in Georgia

Marketing Research Analyst

Bachelor Degree needed \$61,464 annual salary 210 annual average openings in Georgia

Public Relations Specialist

Bachelor Degree needed \$48,672 annual salary 120 annual average openings in Georgia

Recreation Worker

Short-Term On-the-Job-Training needed \$21,570 annual salary 260 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Advertising Account Executive

Agent

Brand Manager

Cashier

Communications Specialist

Customer Service Representative

Demonstrator and Product Promoter

Desktop Publisher

Entertainment Marketer

Entrepreneur

Fashion Retailer

Market Research Analyst

Marketing Specialist

Media Buyer

Product Development Management

Public Relations Specialist

Purchaser

Retail Buyer

Retail Salesperson

Sales

Sales Representative

Sign Maker

Sports Marketer

Website Designer

Web Developer

Webmaster



Source: GADOE Plans of Study



Employment in this field is expected to grow faster than average through 2014 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

RECOMMENDED COURSES

- · Any Business and Computer Science Course
- · Any Science Elective
- Human Growth and Development for Early Childhood
- Work-Based Learning
- · World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Catering Specialist
- Culinary Arts
- Culinary Nutrition Assistant
- Food and Beverage Director
- Food and Beverage Management
- · Food Production Assistant, Worker, or Apprentice
- Food Production Worker I
- Hotel/Restaurant/Tourism Management
- Prep Cook
- Restaurant Manager

COLLEGES/UNIVERSITIES

- Dietetics/Dietician
- FACS Education
- · Food, Nutrition and Wellness Studies
- Food Science and Technology
- See www.GAcollege411.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FCCLA

HUMAN SERVICES

FOOD AND NUTRITION PATHWAY

TOP CAREERS CHOICES

Chef and Head Cook

Work experience needed \$31,304 annual salary 110 annual average openings in Georgia

Dietician/Nutritionist

Bachelor Degree needed \$42,619 annual salary 80 annual average openings in Georgia

Food Scientist and Technologist

Bachelor Degree needed \$55,869 annual salary 10 annual average openings in Georgia

Food Services Manager

Work experience needed \$46,384 annual salary 400 annual average openings in Georgia

Health Education

Master Degree needed \$53,290 annual salary 90 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Agricultural Engineer

Biochemist

Chemical Technician

Consumer Representative

Dietetic Technician

Family and Consumer Science Teacher

Flavorist

Food Inspector

Food Service Manager

Geriatric Food Designer

Health Educator

Health Inspector

Microbiologist

Product Evaluation Scientist

Research and Development Specialist

Sensory Scientist

Teacher Educator

Technical Writer

Toxicologist



Source: GADOE Plans of Study



The Personal Care Services Cosmetology pathway is formulated for students who desire to become licensed cosmetologists. All participating students are required by the Georgia State Board of Cosmetology to obtain a total of 1500 unit hours to be eligible for both the written and practical state test. Students benefit from the program because it allows the student the opportunity to obtain at least half of the required state board hours.

PATHWAY COURSES

- Introduction to Personal Care Services
- · Cosmetology Services II
- · Cosmetology Services III

RECOMMENDED COURSES

- Advanced Cosmetology Services
- Chemistry
- Cosmetology Services Core IV
- Internship I, II, III, IV, V
- Licensure and Employment Opportunities
- · Science and Art of Makeup
- · Science of Advanced Skincare
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Barber License
- Cosmetology
- · Cosmetology Instructor License
- Cosmetology License
- Esthetician License
- Hair Designer
- Master Cosmetology License
- Shampoo Technician

COLLEGES/UNIVERSITIES

Cosmetology

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

HUMAN SERVICES



PERSONAL CARE SERVICES COSMETOLOGY PATHWAY

TOP CAREERS CHOICES

Salary ranges from \$15,530 to \$42,460 per year. In order to obtain a license in cosmetology, nail technology, or skin care in the state of Georgia, students must complete the requirements listed below. Please contact the Georgia State Board of Cosmetology for more information. Requirements:

COSMETOLOGIST: 1500 Hours, Apprenticeship 3000 Hours

HAIR DESIGN: 1325 Hours, Apprenticeship 2650

ESTHETICIAN: 1000 Hours, Apprenticeship 2000 Hours NAIL TECHNICIAN: 525 Hours, Apprenticeship 1050 Hours

ADDITIONAL CAREER CHOICES

Barber Stylist

Chemical Texture Specialist

Color Specialist Chemist

Cosmetologist

Cutting Specialist

Editorial Specialist

Esthetician

Hair Color Specialist

Hairstylist

Make-up Artist

Master Cosmetologist

Nail Technicians

Permanent Wave Technician

Platform Artist

Receptionist

Salon Owner

Shampoo Tech

Wig Stylist



Source: GADOE Plans of Study



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 Digital Technology
- Computer Science Principles or AP Computer Science Principles
- AP Computer Science

RECOMMENDED COURSES

- Any Advanced Math Course
- · Any Business and Computer Science Course
- Any World Language
- Entrepreneurship

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- CISCO CCNP Specialist
- CISCO Network Specialist
- Computer Engineering Technology
- Computer System Design Specialist
- Computer Support Specialist
- Drafting Technology
- Electrical and Computer Engineering Technology
- · Electromechanical Engineering Technology
- Industrial Engineering Technology
- Internet Specialist/Website Design
- LINUX/UNIX System Administrator
- Network Design Technology Specialist
- Network Specialist
- PC Repair & Network Techician
- Telecommunications Engineering Technology
- Wireless Engineering Technology
- Wireless Networking Technician

COLLEGES/UNIVERSITIES

- Bachelor of Arts with a Major in Applied Computer Science
- Bachelor of Science with a Major in Computer Game Design and Development
- Bachelor of Science with a Major in Computer Science
- Computer Systems Engineering

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA
- TSA

INFORMATION TECHNOLOGY

COMPUTER SCIENCE PATHWAY

TOP CAREERS CHOICES

Employment of computer programmers is expected to increase 12 percent from 2010 to 2020, about as fast as the average for all occupations.

Computer Programmers

Bachelor Degree needed \$75,400 annual salary 230 annual average openings in Georgia

Computer System Analysts

Bachelor Degree needed \$73,800 annual salary 810 annual average openings in Georgia

Software Developers, Application

Bachelor Degree needed \$86,300 annual salary 340 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Computer Programmers

Computer & Information Systems Managers

Computer Hardware Engineers

Computer Network Architects

Computer System Analysts

Database Administrators

Information Security Analysts

Network and Computer Systems

Administrators

Software Engineers

Video Game Designers





The increased use of computers has created a high demand for specialists to provide advice to users, as well as for day-to-day administration, maintenance, and support of computer systems and networks. This pathway is designed to introduce students to the field of cybersecurity while examining best practices related to the management of security, ethics, trust, internal/external threats, cryptography, and wireless technologies. Computer-related jobs are generally high paying, and those working in the profession require a foundational knowledge of problem solving and logical thinking.

PATHWAY COURSES

- Introduction to Digital Technology
- Introduction to Cybersecurity
- Advanced Cybersecurity

RECOMMENDED COURSES

- Any Advanced Math Course
- · Any Business and Computer Science Course
- Any Engineering Course
- Any World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Cybersecurity
- Cyber Crime Specialist
- Computer Support Specialist

COLLEGES/UNIVERSITIES

- Computer Support Specialist
- Computer Science
- Management Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA
- TSA

INFORMATION TECHNOLOGY

CYBERSECURITY PATHWAY

TOP CAREERS CHOICES

Computer & Information Systems Managers

Bachelor Degree needed \$134,679 annual salary 333 annual average openings in Georgia

Computer Support Specialists

Some College/No Degree Required \$44,700 annual salary 830 annual average openings in Georgia

Network & Computer System Administrators

Bachelor Degree needed \$83,734 annual salary 246 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Administrative Support Workers Network

Computer & Information Systems Managers

Computer System Administrators

Computer Network Support Specialist

Computer Operators

Computer User Support Specialist

First-Line Supervisors of Office







Students completing this pathway will gain an understanding of the fundamental principles used at every stage of the game creation process. After establishing foundational knowledge, game genres and modes of play are explored in terms of the psychology of incentives, motivation to play, and social networking. Virtual characters and non-player characters are reviewed from concept drawing to 2D and 3D art, rigging, and animation. Level design, storytelling, and animation are added to develop a virtual world around the characters. Students taking this pathway are strongly encouraged to add an internship to their curriculum which will give them real world experience and an understanding of how the computer game industry works. Employment of game designers is expected to increase 8 percent from 2016 - 2026, about as fast as the average for all occupations, resulting in 6,200 jobs available nationwide.

PATHWAY COURSES

- Introduction to Digital Technology
- Computer Science Principles
- · Game Design: Animation and Simulation

RECOMMENDED COURSES

- · Any Art Course
- Any Computer Science Course
- · Any Mathematics Course
- · Any Physics Course
- Student Internship

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Game Development
- Computer Information Systems
- Computer Programming
- Design and Media Production Technology

COLLEGES/UNIVERSITIES

- · Computer Engineering
- Computer Science
- Management Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA
- TSA

INFORMATION TECHNOLOGY

GAMING DESIGN PATHWAY

TOP CAREERS CHOICES

Computer Game Designer

Bachelor Degree Required \$63,970 annual salary

Multimedia Artists and Animators

Bachelor Degree needed \$70,530 annual salary

Computer and Information Systems Managers

Bachelor Degree Required \$134,679 annual salary 333 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Audio Engineer

Computer Programmer

Software Developer

Technology Support Specialist

Video Game Tester





This pathway examines the impact of computing on the world around us. Engage your creativity, demonstrate and build your problem solving all while connecting the relevance of computer science to society! Examine how personal devices, smart cars and the Internet interact. Courses are based on a discovery and hands on learning. Don't just read about it create and do it!

PATHWAY COURSES

- Introduction to Digital Technology
- Computer Science or Principles or AP Computer Science Principles (counts as 4th Science or 4th Math)
- Embedded Computing (counts as 4th Science or 4th Math)

RECOMMENDED COURSES

- Any Computer Science course
- Art
- · Math / Science classes
- Robotics
- Sociology / Psychology
- · STEAM or engineering

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Computer Science
- Internet Specialist
- Programming
- Computer Simulation

COLLEGES/UNIVERSITIES

- Computer Science
- · Computational Media
- Computer Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA
- TSA

INFORMATION TECHNOLOGY



TOP CAREERS CHOICES

Web Developer

Associate Degree needed \$82,000 Median Salary 27% growth from 2014 - 2017

Information Architect

Bachelor's Degree needed \$100,240 Median Salary 9% growth from 2014 - 2017

Software Developer

Bachelor's degree needed \$100,690 Median Salary 17% growth from 2014 - 2024

ADDITIONAL CAREER CHOICES

App Developer

Business Intelligence Analysts

Computer Programmer

Computer Systems Analysts

Cyber Security Consultant

Data Miner

Database Administrator

Game Developer

Information System

IT Consultant

Multimedia Programmer

Researcher

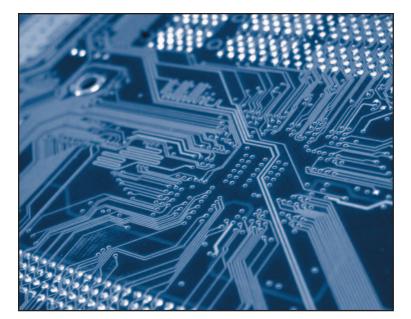
Software Engineer

Software QA Tester

System Analyst

Technical Writer





The Programming pathway gives many opportunities to strengthen problem solving skills, and provides needed skills in all disciplines.

PATHWAY COURSES

- · Introduction to Digital Technology
- Computer Science Principles
- · Programming, Apps, Games and Society

RECOMMENDED COURSES

- Any Business and Computer Science Course
- Broadcast/Video Production
- Introduction to Engineering Drawing and Design
- Introduction to Graphics and Design
- · Work-Based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Business Information Systems
- CISCO CCNP Specialist
- CISCO Network Specialist
- Computer Forensics
- Computer Information Systems
- Computer Programming
- Computer Science
- Computer Software Engineering
- Computer Support Specialist
- Drafting Technology
- Information Science
- Information Technology
- Internet Specialist/Website Design
- LINUX/UNIX System Administrator
- Mathematics
- · Networking Specialist
- PC Repair & Network Techician
- Wireless Engineering Technology
- Wireless Networking Technician

COLLEGES/UNIVERSITIES

See www.GAcollege411.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FBLA
- TSA

INFORMATION TECHNOLOGY

PROGRAMMING PATHWAY

TOP CAREERS CHOICES

Computer Programmers

Bachelor Degree needed \$73,674 annual salary 330 annual average openings in Georgia

Computer Software Engineers

Bachelor Degree needed \$77,022 annual salary 730 annual average openings in Georgia

Computer System Analysts

Bachelor Degree needed \$74,443 annual salary 890 annual average openings in Georgia

Computing and Information Systems Managers

Bachelor Degree plus experience needed \$101,400 annual salary 530 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Actuaries

Computer Scientist

Computer Software Engineer

Computer Systems Analyst

Database Administrator

Mathematician







The Web Development pathway instructs students on the basics of designing a web page and leads to advanced web design and 3D animation. Web design can be found in every area of business and industry, as well as in individuals' personal life. Students will have the opportunity to learn skills that will help them create web pages, gaming and other digital media features.

PATHWAY COURSES

- · Introduction to Digital Technology
- Computer Science Principles
- Web Development

RECOMMENDED COURSES

- Any Business and Computer Science Course
- Art
- Broadcast/Video Production
- Introduction to Graphics and Design
- Marketing Principles
- · Work-Based Learning
- World Language
- Yearbook/Journalism

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Computer Animation and Multimedia
- Computer Simulation
- Design and Media Production Technology
- Digital Media
- Internet Specialist Website Design
- · Printing and Graphics Technology
- Website Designer

COLLEGES/UNIVERSITIES

- Animation
- · Computational Media
- Computer Science
- · Graphic Designer

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA
- TSA

INFORMATION TECHNOLOGY

WEB **DEVELOPMENT PATHWAY**

TOP CAREERS CHOICES

Computer Specialist

Associate Degree needed \$55,640 annual salary 80 annual average openings in Georgia

Desktop Publisher

Post-Secondary Vocational Training needed \$30,680 annual salary 30 annual average openings in Georgia

Graphic Designer

Bachelor Degree needed \$44,034 annual salary 160 annual average openings in Georgia

Multi-Media Artist and Animator

Bachelor Degree needed \$44,554 annual salary 40 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Computer Service Technician

Database Developer

Graphic Designer

Help Desk Support

Illustrator

Internet Specialist

Multimedia Developer

Network Analyst

Network Engineer

Programmer

Project Manager

Video Game Developer

Web Developer

Webmaster

Website Designer

Software Trainer



Source: GADOE Plans of Study



Workers in the Fire & Emergency area work in potentially risky situations protecting the public against fires and other dangers. Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters and emergency service workers help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. Firefighters control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance. The Georgia jobs for firefighters will increase by 9% between 2008 and 2018.

PATHWAY COURSES

- Introduction to Law, Public Safety, Corrections and Security
- Essentials of Fire and Emergency Services
- · Applications of Firefighting

RECOMMENDED COURSES

- Anatomy
- Business Law
- Chemistry
- Dual Enrollment Courses
- Physics
- · World Languages

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- · Advanced Fire Administration
- AFO Airport Fire Officer
- AMF Airport Master Firefighter
- Basic Fire Company Officer
- Emergency Medical Responder
- Fire Fighter I & II
- Fire Officer I & II
- · Firefighter/EMSP
- Fire Science
- · Fire Science Technology
- · Health & Safety Officer
- ISO Incident Safety Officer
- Public/Private Crisis Manager

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

LAW, PUBLIC SAFETY, CORRECTIONS

FIREFIGHTING PATHWAY

TOP CAREERS CHOICES

First Line Supervisors and Prevention Workers

Bachelor Degree needed \$53,600 annual salary 90 annual average openings in Georgia

Fire Inspectors

Some College/No Degree Required \$46,500 annual salary 10 annual average openings in Georgia

Firefighters

Some College/No Degree Required \$35,500 annual salary 440 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Forest Fire Inspectors and

Prevention Specialists Lifeguards,

Ski Patrol, Other Recreational Protective

Service Workers Private Detectives and

Investigators



Source: GADOE Plans of Study



This pathway is designed to provide students with career-focused educational opportunities in various public safety fields. Each course has elements which cover tactics, methods, and skills utilized in law enforcement and other public safety organizations.

PATHWAY COURSES

- · Introduction to Law, Public Safety, Corrections, and Security
- · Criminal Justice Essentials
- · Criminal Investigations

RECOMMENDED COURSES

- Accounting
- Anatomy
- · Any health care science course
- · Introduction to Business and Technology
- World Language
- Forensics Science Elective
- Legal Environment of Business
- Wildlife Management
- · Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Criminal Justice Technology
- Law Enforcement Technician

COLLEGES/UNIVERSITIES

- Criminal Justice
- Criminology
- Pre-law

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

LAW, PUBLIC SAFETY, CORRECTIONS



TOP CAREERS CHOICES

Corrections Officer

Moderate-Term On-the-Job Training needed \$27,498 annual salary 470 annual average openings in Georgia

Forensic Science Technician

Associate Degree needed \$35,818 annual salary 20 annual average openings in Georgia

Lawyer

First Professional Degree needed \$115,960 annual salary 460 annual average openings in Georgia

Police and Sheriff's Patrol Officer

Long-Term On-the-Job Training needed \$35,402 annual salary 910 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Attornev

Bailiff

Border Patrol

Correctional Officer/Jailer

Crime Scene Investigator

Detective

Dispatcher and Communications Officer

Forest Ranger

Game Warden

Judge

Paralegal

Parole Officer

Police Officer

Private Detective and Investigator

Private Security Guard

Probation Officer

Sheriff's Deputy

Special Agent

State Trooper



Source: GADOE Plans of Study



Law, public safety, corrections, and security workers plan, manage and provide legal, public safety, security, and protective services. Occupations are numerous and represent multiple levels of education and skills. Courses are designed to provide students with the understanding of the various services which ensure the proper function of our nation's legal system. Job openings will stem from employment growth attributable to the desire for increased corporate, industrial and homeland security. Also, a more security-conscious society and concern about drug-related crimes should contribute to the increasing demand.

PATHWAY COURSES

- Introduction to Law, Public Safety, Corrections and Security
- · Essentials of Legal Services
- Applications of Law

RECOMMENDED COURSES

- American Government/Civics
- Any World Language
- Introduction to Cybersecurity
- · Introduction to Digital Technology
- Journalism
- Psychology

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Paralegal Studies
- Legal Assistant
- Court Reporting
- Public Safety Training

COLLEGES/UNIVERSITIES

- · Criminal Justice/Criminology
- Emergency Management/Homeland Security
- Law Enforcement Administration
- Police Science
- Pre-Law leading to Law School

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

LAW, PUBLIC SAFETY, CORRECTIONS

LEGAL SERVICES/ APPLICATIONS OF LAW PATHWAY

TOP CAREERS CHOICES

Attorneys

Advanced Degree needed \$137,700 annual salary 690 annual average openings in Georgia

Court Reporters

Some College/No Degree Required \$51,300 annual salary 40 annual average openings in Georgia

Paralegals and Legal Assistants

Bachelor Degree needed \$45,300 annual salary 360 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Correction Officers & Jailers

Criminal Investigators

EMTs & Paramedics

Firefighters

Information Security IT Specialists

Police Officers

Public Safety Communication

Security & Protective Services





The Manufacturing Pathway provides students with opportunities to become familiar with manufacturing careers and develop fundamental technological literacy as they learn about the history, systems, and processes of manufacturing. Students will also learn about computer aided design (CAD), computer numerical control (CNC), robotics, computer assisted manufacturing (CAM), programmable logic controllers, automated guided vehicles (AGV), and computer integrated manufacturing (CIM). In the end students will have the understanding of how to design and implement a production system.

PATHWAY COURSES

- · Introduction to Manufacturing and Materials Science
- · Robotics and Automated Systems
- Production Enterprises

RECOMMENDED COURSES

- Algebra
- · Any Science Elective
- Computer Applications
- World Language (German)

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Basic Machinist
- CNC Technology
- · Electrical Control Systems
- Industrial Electrician
- Industrial Fluid Power Technician
- Industrial Mechanical Systems
- Industrial Motor Control
- Industrial Systems Technology
- Lathe Operator
- · Mechatronics Technology
- Mill Operator
- · Precision Machining and Manufacturing
- Process Control
- Programmable Control Technician
- Robotic Technician
- Technician I & II
- · Welding Certificate
- · Welding Technology

COLLEGES/UNIVERSITIES

- Industrial Engineering
- Manufacturing Engineering
- · Manufacturing Technology
- · Industrial Technology and Management
- Production Design

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FIRST Robotics
- TSA

MANUFACTURING

MANUFACTURING PATHWAY

TOP CAREERS CHOICES

Manufacturers produce numerous products in daily demand by customers. People employed in manufacturing deal with such areas as planning, managing and performing the processing of materials into intermediate or final products. They also deal with related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Plant Manager

\$50,000 - \$130,000 annual salary 30-60 annual openings per year

Manufacturing Engineer

\$60,000 - \$140,000 annual salary 75-100 annual openings per year

Manufacturing Supervisor

\$40,000 - \$120,000 annual salary 75-100 annual openings per year

ADDITIONAL CAREER CHOICES

Control System Analyst

Department Manager

Production Supervisor

Quality Supervisor

Technician

Welder



Source: GADOE Plans of Study



Mechatronics is a diverse field. It encompasses many inter-related disciplines including Electronics, Mechanics, Fluid Power, Electrical Control Systems, Programmable Logic Controllers (PLC), Computers, and Robotics. Mechatronics is a term which includes the above disciplines and takes an integrated approach to their study. People employed in the mechatronics field deal with automated systems in a wide variety of applications. They also deal with related professional and technical support activities such as production planning and control, maintenance, and engineering.

PATHWAY COURSES

- Introduction to Mechatronics-DC Theory, Pneumatic Systems, and PLC
- AC Theory, Electrical Motors, and Hydraulic Systems
- Semiconductors Mechanical Sys, and Pump and Piping Systems

RECOMMENDED COURSES

- Advanced Math
- Physics
- · Foundations of Engineering and Technology
- Intro to Digital Technology

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- 4-Year Universities/Colleges
- · 2-Year Colleges
- Technical Colleges
- · State Registered Apprenticeships
- Special Purpose Schools
- On-the-Job Training
- Military

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FIRST Robotics
- TSA

MANUFACTURING

MECHATRONICS PATHWAY

TOP CAREERS CHOICES

Industrial Engineer

Bachelor's Degree \$76,880 annual salary

Industrial Engineering Technician

Associate's Degree \$48,330 annual salary

Industrial Machinery Mechanics

On-Job-Training \$42,500 annual salary

ADDITIONAL CAREER CHOICES

Chemical Plant & System Operators

Commercial & Industrial Equipment Repairers

Computer User Support Specialists

Electrical and Electronics Repairers

Electronics Engineering Technicians

Industrial Engineers

Industrial Engineering Technicians

Industrial Machinery Mechanics





The Fashion Marketing pathway introduces students 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 systems. Additionally, students will develop skills necessary for managing the following marketing elements: 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

RECOMMENDED COURSES

- Any Business and Computer Science course
- · Marketing and Management
- · Work-Based Learning
- · World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- · Business Management
- · Cosmetics and Fragrance Marketing
- · Interior Design
- · Retail Manager
- Retail Merchandise Management
- · Sales Professional Certificate
- · Visual Merchandising Associate Certificate

COLLEGES/UNIVERSITIES

- Advertising and Marketing Communications
- Fashion Design
- Fashion Journalism
- · Fashion Marketing and Management
- Public Relations
- · Textile Development and Marketing

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA

MARKETING

FASHION, MERCHANDISING & RETAIL MANAGEMENT PATHWAY

TOP CAREERS CHOICES

Advertising and Promotions Manager

Bachelor Degree needed \$100,300 annual salary

Wholesale and Retail Buyers

Bachelor Degree needed \$58,800 annual salary 80 annual average openings in Georgia

Online Merchants

Bachelor Degree needed \$66,000 annual salary

ADDITIONAL CAREER CHOICES

Brand Managers

Divisional Merchandise Managers

Entrepreneurs/Company Owners

Fashion Designers

Financial Analysts

General Merchandise Managers

Merchandise Analysts

Manufacturer's Sales Representatives

Manufacturer's Store Coordinators

Product Developers

Retail buvers

Visual Merchandisers

Work-Based Learning





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

RECOMMENDED COURSES

- Any Business and Computer Science Course
- · Sports and Entertainment Marketing
- · Work-Based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Business Administration
- · Business Management
- Entrepreneurship
- Expert Sales Management
- Fashion Design and Marketing
- Retail and Merchandising

COLLEGES/UNIVERSITIES

- Accounting
- Advertising
- Business Economics
- Communication
- Graphic Arts
- · Hospitality Administration
- International Business
- Management
- Marketing
- Professional Sales
- Real Estate
- Risk Management and Insurance

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA

MARKETING

MARKETING AND MANAGEMENT PATHWAY

TOP CAREERS CHOICES

Chief Executive

Bachelor Degree plus experience needed \$155,168 annual salary 850 annual average openings in Georgia

Human Resources, Training and Labor Relations Specialist Bachelor Degree needed

\$53,061 annual salary 150 annual average openings in Georgia

Marketing Manager

Bachelor Degree plus experience needed \$94,307 annual salary 310 annual average openings in Georgia

Marketing Research Analyst

Bachelor Degree needed \$61,464 annual salary 210 annual average openings in Georgia

Personal Financial Advisor

Bachelor Degree needed \$75,754 annual salary 470 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Advertising Account Executive Advertising Executive Agent Airline Customer Service Agent

Art Dealer and Director Automobile Salesperson Barber and Salon Owner

Brand Manager

Cashier

Communications Specialist

Creative Director

Customer Service Representative

Demonstrator and Product Promoter

Desktop Publisher

Entertainment Marketer

Entrepreneur Fashion Retailer Floral Designer

Funeral Director

Insurance Agent

Interior Designer

Landscape Architect

Logistics Specialist

Market Research Analyst

Marketing Specialist

Media Buyer

Mortgage Broker

Painter and Illustrator

Product Development Management

Public Relations Specialist

Purchaser

Real Estate Agent

Retail Buyer and Salesperson

Sales Representative

Sign Maker

Sports Marketer

Travel Agent

Website Designer Web Developer



Source: GADOE Plans of Study

http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Georgia-Career-Pathways-New-Rule.aspx



Keen competition should be expected in these highly coveted jobs. Those working in the marketing communications and promotion field coordinate market research, market strategies, sales, advertising, promotion, pricing, product development and public relations activities. Job opportunities available in this field include advertising managers, account executives, creative directors, media directors, promotions managers, marketing managers, product development managers, market research managers, public relations managers and sales managers. These jobs are found in almost every industry, and the number of jobs available is expected to increase faster than average through 2020. 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. As a result, the more computer related skills one can accumulate, the better his/her employment opportunities in this industry.

PATHWAY COURSES

- Marketing Principles
- · Promotion and Professional Sales
- Marketing Communications Essentials

RECOMMENDED COURSES

- Any Business and Computer Science Course
- Entrepreneurship
- Marketing Management
- · Work-Based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Business Administration
- Expert Sales Management
- Project Management

COLLEGES/UNIVERSITIES

- Accounting
- Advertising
- Business Economics
- Communication
- Graphic Arts
- International Business
- Management
- Marketing
- Professional Sales

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- DECA
- FBLA

MARKETING

MARKETING COMMUNICATIONS AND PROMOTIONS PATHWAY

TOP CAREERS CHOICES

Advertising and Promotions Manager

Bachelor Degree needed \$102,602 annual salary 71 annual average openings in Georgia

Public Relations Specialists

Bachelor Degree needed \$57,399 annual salary 112 annual average openings in Georgia

Market Research Analysts

Bachelor Degree needed \$66,503 annual salary 519 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Advertising and Promotion Managers Search

Business Teachers/Post-Secondary

Green Marketers

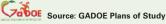
Marketing Managers

Marketing Strategists

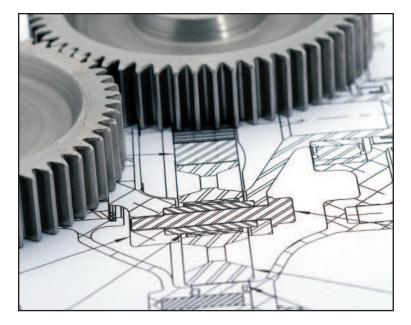
Public Relations Specialists Advertising

Sales AgentsSales Managers

Sales Representatives



http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Georgia-Career-Pathways-New-Rule.aspx



Introduction to Engineering Design (IED) is a high school level course that is appropriate for 9th or 10th grade students who are interested in design and engineering. The major focus of the 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. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

PATHWAY COURSES

- · Foundations of Engineering and Technology
- Engineering Concepts
- · Engineering Applications

RECOMMENDED COURSES

- · Algebra/Geometry
- Trigonometry/Physics

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Electrical Utility Technology
- Engineering Technology
- Industrial Systems Technology
- · Mechatronics Technology
- Military
- On-the-Job Training
- Special Purpose Schools
- State Registered Apprenticeships
- · Wireless Engineering Technology

COLLEGES/UNIVERSITIES

• See www.GAcollege411.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- FIRST Robotics
- TSA

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

ENGINEERING AND TECHNOLOGY PATHWAY

TOP CAREERS CHOICES

Civil Engineer

Bachelor Degree needed \$56,259 annual salary

Electrical Engineer

Bachelor Degree needed \$52,990 annual salary

Industrial Engineer

Bachelor Degree needed \$47,720 annual salary

Materials Engineer

Bachelor Degree needed \$51,420 annual salary

Mechanical Engineer

Bachelor Degree needed \$47,900 annual salary

ADDITIONAL CAREER CHOICES

Civil Engineer

Designer

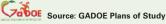
Drafter

Machinist

Manufacturing

Mechanical Engineer

Quality Control Inspector





This pathway provides students with an introduction to the occupational area of aviation maintenance as currently understood and practiced by the Federal Aviation Administration (FAA). Students will build a solid knowledge base in the basics of aircraft maintenance, performance, and design. Classroom and laboratory activities assure a thorough understanding of the aviation environment.

PATHWAY COURSES

- Fundamental of Aerospace
- Aviation Maintenance I
- Aviation Maintenance II

RECOMMENDED COURSES

- · Any Mathematics Course
- Any Engineering Course
- · Any Physics Course
- Computer Science

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- FAA Repairman
- Airframe and Powerplant (A&P) Certificate
- Aviation Maintenance Technology
- Avionics Technician
- Maintenance Technician

COLLEGES/UNIVERSITIES

- Aviation Maintenance Technology
- Aviation Maintenance Science
- Aviation Maintenance Management

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- SkillsUSA

TRANSPORTATION, DISTRIBUTION, & LOGISTICS



AEROSPACE AVIATION MAINTENANCE PATHWAY

TOP CAREERS CHOICES

Aviation Mechanics & Technicians

Some College/Technical School Required \$83,370 annual salary

Avionics Technicians

Some College/Technical School Required \$69,650 annual salary

Aviation Maintenance Manager/Director

Bachelor Degree Required \$114,579 annual salary

ADDITIONAL CAREER CHOICES

Aviation Inspector

Aerospace Engineer

Aircraft Crew Chief

Airway Transportation Systems Specialist

Designated Airworthiness Representative



Those employed in flight operations include aircraft pilots, flight engineers, flight attendants and air traffic controllers. The demand for these job positions is projected to increase as growth in world travel rises and many employed in the field are expected to retire. Job opportunities will be highest among passenger and cargo airline companies with the best job prospects being regional airlines and low-cost carriers. This pathway will introduce students to the basics of aircraft navigation and the communication methods necessary for safe aircraft operations.

Additionally, students will gain a meteorological foundation for understanding the forecasting and charting of weather patterns as applied to the air transportation industry.

PATHWAY COURSES

- Fundamental of Aerospace
- Flight Operations I
- Flight Operations II

RECOMMENDED COURSES

- · Any Business or Marketing Course
- Any World Language
- Any Engineering Course
- Chemistry/Physics/Environmental Science
- Human Geography

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- Aerospace Engineering
- Aviation Management
- Professional Flight/Aeronautics

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA
- TSA

TRANSPORTATION, DISTRIBUTION, & LOGISTICS



AEROSPACE FLIGHT OPERATIONS PATHWAY

TOP CAREERS CHOICES

Air Traffic Controllers

Associate's Degree \$124,540 annual salary 40 annual average openings in Georgia

Airfield Operations Specialists

High School Diploma \$44,500 annual salary 40 annual average openings in Georgia

Commercial Pilots

Bachelor's Degree preferred/commercial pilot's license required \$111,930 annual salary 80 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Aerospace Engineers

Aircraft Cargo Handling Supervisors

Airfield Operations Specialists

Aviation Safety Specialists

Avionics Inspectors

Flight Attendants

Operations Technicians



Transportation plays a major role in this pathway. The movement of goods and raw materials (distribution) to specific locations, on time and in the most efficient and effective process is critical in most industries. More specifically, this includes the shipment of raw materials to the manufacturer and movement of finished products to customers. In addition, transportation consists of the movement of parts to assembly areas as they are assembled. The term "logistics" encompasses the movement of goods and services. The question businesses face on an ongoing basis, especially in a highly competitive marketplace, is how to move their products efficiently and cost effectively throughout the supply chain, which represents all the members of the distribution chain. The logistics process includes the management of freight, warehousing of materials, inventory management and the packaging of products for storage and shipment.

PATHWAY COURSES

- Logistics Fundamentals
- · Logistics Operations
- Materials Management

RECOMMENDED COURSES

- Foundations of Engineering and Technology
- · Intro to Digital Technology
- Introduction to Mechatronics

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- 4-Year Universities/Colleges
- 2-Year Colleges
- Military
- On-the-Job Training
- Special Purpose Schools
- · State Registered Apprenticeships
- Technical Colleges

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

TRANSPORTATION, DISTRIBUTION, & LOGISTICS



DISTRIBUTION AND LOGISTICS PATHWAY

TOP CAREERS CHOICES

Logistics Manager

Bachelor's Degree \$68,900 annual salary

Materials Mover

Diploma, Industry Credential \$23,400 annual salary

Storage and Distribution Manager

Bachelor's Degree \$77,900 annual salary

ADDITIONAL CAREER CHOICES

Clerks

Laborers and Freight, Stock and Materials

Logisticians

Logistics Analysts

Logistics Engineers

Logistics Managers

Movers

Packers and Packagers

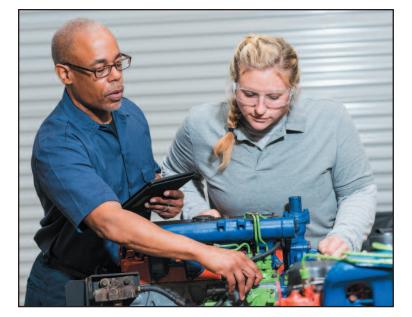
Power Distributors & Dispatchers

Production, Planning & Expediting

Storage and Distribution Managers

Supply Chain Managers

Transportation Managers



The auto mechanics of the past were self-taught, learning from local auto shops or dealerships. Employers are now hiring employees with good people skills and backgrounds in electronics, computers and communications, along with math and problem-solving skills. This program will teach "head skills" and "hand skills" to prepare the student for the world of automotive technology careers and to meet the needs of prospective employers.

PATHWAY COURSES

- General Automotive Technology 1
- General Automotive Technology 2
- General Automotive Technology 3
- Advanced Automotive Technology 4
- · Advanced Automotive Technology 5
- · Advanced Automotive Technology 6
- Automotive Service Technology Internship 1
- Automotive Service Technology Internship 2

RECOMMENDED COURSES

- · Advanced Algebra/Trigonometry
- Business Essentials
- · Computer Applications
- Engine Performance Concepts
- Entrepreneurship
- Heating Ventilation and Air Conditioning Concepts
- Money Management
- Physics
- Preventative Maintenance Inspection
- · Work-Based Learning
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- ASE
- Automotive Collision Repair
- Automotive Technology/Technician
- Industrial Truck (Fork Lift) Maintenance Technician
- Motorsports Vehicle Technology
- Welding

COLLEGES/UNIVERSITIES

- Automotive Engineering
- Business Management
- Education

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- CTI
- SkillsUSA

TRANSPORTATION, DISTRIBUTION, & LOGISTICS



AUTOMOTIVE SERVICE TECHNOLOGY PATHWAY

TOP CAREERS CHOICES

Automotive Service Technician and Mechanics

Post-Secondary Vocational Certification \$34,549 annual salary 1,000 annual average openings in Georgia

Bus and Truck Mechanic/Diesel Engine Specialist

Post-Secondary Vocational Certification \$36,504 annual salary 380 annual average openings in Georgia

Electrical and Electronics Repairers, Commercial and Industrial Equipment

Post-Secondary Vocational Certification \$47,611 annual salary 130 annual average openings in Georgia

Vocational Teacher, Post-Secondary School

Bachelor Degree or higher plus work experience \$44,637 annual salary 250 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Auto Manufacturer Sales

Auto Manufacturer Service

Auto or Body Technician

Automotive Engineer

Automotive Mechanist

Automotive Parts Sales

Automotive Sales

Body Shop Manager

Dealership or Shop Owner

DOT Salvage Inspector

Insurance Adjuster

Parts Professional

Quality Control Technician

Retail

Service Advisor

Service Director Dealership

Specialized Technician Teacher

Technician (ASE Certified)

Warranty Clerk

Waste Management (EPA)



Source: GADOE Plans of Study

http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Georgia-Career-Pathways-New-Rule.aspx



INTERNSHIP FORSYTH

is a structured experience that connects a student's career goal and classroom learning with a productive learning environment. Internship Forsyth provides students with opportunities for instruction in occupational skills and career exploration, and guidance in identifying employment and educational goals. Students have the opportunity to connect what they learn in school with work site application.

Internship Forsyth program is designed to provide experiences and activities that support a school to career transition.

This simply means that students are allowed to work off campus in the business community in order to learn more about a chosen career. Once a student has met all requirements, the Coordinator will determine the correct placement for the student. The students will earn one unit of credit for each completed course.

REQUIREMENTS FOR INTERNSHIP FORSYTH

- 16 years of age or older in good standing with the school system
- A valid picture ID
- A Georgia Driver's License and proof of auto insurance in order to provide your own dependable transportation or ability to provide your own dependable transportation
- On track for graduation and willing to utilize the Internship Forsyth Program as an elective credit
- Career, technical, and agriculture education (CTAE), academic, fine arts, or world language coursework related to a career goal and job placement
- A good attendance and discipline record
- Parental support and consent
- Willing to submit to all health related screenings required by the sponsoring employer (ex.pre-employment drug screenings, etc.)

CAREER DEVELOPMENT

The FCS follows the state model where each high school has one Career Development Coordinator. The coordinator is required to attend GADOE trainings, as well as all region meetings. Some responsibilities of the coordinator include: properly placing students in the right course number, finding job or internship placements for students, creating business partnerships, conducting employer/mentor training, visiting jobsites four times annually, using CNet to record all data such as job visits and wage/hour reports, teaching employability skills, coordinating shadow day, being active in community groups such as the Chamber of Commerce.

SPECIALTIES

INTERNSHIP FORSYTH

INTERNSHIP FORSYTH IS AVAILABLE THROUGH THE FOLLOWING **PROGRAMS**

- · Agriculture, Food, and Natural Resources
- Architecture and Construction
- Arts, AN Technology, and Communications
- Business Management and Administration
- Education and Training
- Energy
- Finance
- · Government and Public Administration
- Health Science
- Hospitality and Tourism
- Human Services
- Information Technology
- · Law, Public Safety, Correction and Security
- Manufacturing
- Marketing
- Science, Technology, Engineering and Mathematics (STEM)
- Transportation Distribution and Logistics

OTHER PATHWAYS

- Advanced Academic Pathways
- Fine Arts Pathways
- World Language Pathways

HIGH SCHOOL CAREER **DEVELOPMENT COORDINATORS**

Marelle Bowers

Alliance Academy for Innovation

Susan Fagan Lambert HS

Dianne King

Denmark HS and West Forsyth HS

Debra Moore South Forsyth HS

Nancy Ruff North Forsyth HS

Lauren Westbrook Forsyth Central HS



WHAT IS THE APPLICATION PROCESS?

After completing an application, students are selected into the program based on their abilities, aptitudes, and career goals. In addition, students are required to answer essay questions and include teacher and community member references. The selection committee will use all written evidence and data gathered in the application to make their selection. You will be contacted by May 2020 if you are selected into the program.

WHAT WILL I DO IN THE HONORS MENTORSHIP PROGRAM, AND HOW WILL I BE GRADED?

First, you will be paired with a mentor who is an expert and/or professional in the field of your choice. Once you have been paired, you will begin an internship that will occur 4-5 hours per week for a full school year. In addition, you will complete weekly assignments through itslearning. The majority of your grade will be from your capstone portfolio project, which you will be researching and working on throughout the year.

DO I ACTUALLY COME TO CLASS EACH DAY?

No. We will have monthly face to face meetings, but all other coursework and communication will happen through a virtual environment via its learning.

WHAT FIELDS/CAREERS ARE OFFERED IN THE HONORS MENTORSHIP PROGRAM?

We are currently offering any type of career fields. As long as we can secure a community mentor for you to intern with, the possibilities are endless!

WHO CAN APPLY?

We encourage any rising 11th and 12th grade students who desire a challenging, enriching, and career-based internship opportunity to apply. Student MUST be highly motivated and mature to be accepted in to the program.

Note: Each participant will be responsible for his/her own transportation to the worksite of his/her assigned mentor and to the off-campus classroom. **SPECIALTIES**

MENTORSHIP FORSYTH

PICKUP AN APPLICATION from the Counseling Office or email vlowe@forsyth.k12.ga.us!

Mentorship Forsyth is a year-long blended learning experience for 11th and 12th grade students!

Mentorship Forsyth program designed to provide high school students challenging and enriching career-oriented opportunities not usually available within the regular classroom. Selected participants understand that this course replaces an otherwise traditional elective credit. Open to honors level juniors and seniors, the program expands the elective curriculum beyond the school site.

Students will work and study under the direction of a Community Mentor – a person of recognized ability and success in the community. This internship incorporates the student's individual talents and intellectual abilities. The rigorous curriculum and demands of this course require students to be focused, goal-oriented, self-motivated, mature, determined to pursue enriched learning, and passionate about a particular career field.

Selected students understand that they will need to invest a minimum number of hours per week, depending on your Mentorship Forsyth class scheduling, in order to receive full credit for the course. This schedule is flexible and both the student and the mentor determine the weekly meeting times. Other requirements for this course include: providing suggested names and/or specific businesses as potential mentors in the chosen career field; attending all meetings with the Mentorship Forsyth Coordinator and Community Mentor, creating a career portfolio, using technology throughout the course, presenting a culminating capstone project to a panel of community professionals, participating in team-building activities, and working with a Community Mentor Professional in his/her career field.



SPECIALTIES

CAREER DEVELOPMENT

FOR ADDITIONAL INFORMATION Contact vlowe@forsyth.k12.ga.us or visit www.forsyth.k12.ga.us/ctae today!

DO YOU KNOW OF BUSINESS/INDUSTRY IN THE COMMUNITY WHO WOULD LIKE TO GET INVOLVED AS A CAREER DEVELOPMENT PARTNER?

Forsyth County Schools is committed to building a strong base of business, industry, and community support that can help provide career development opportunities for our students! These partnerships allow students to go beyond the classroom and into the community to consider different career fields, learn basic workplace behavior, and develop specific skills within an industry. Through career development opportunities, students can apply what they are learning in the classroom as they prepare to transition into post-secondary education and training. Here are some ways to get involved:

CAREER DEVELOPMENT PARTNERS OPPORTUNITIES FOR PARTICIPATION:

- · Advisory Council
- · Curriculum Development
- Teacher Externships
- Facilities/Equipment
- College & Career Fair Participation
- Mock Interviews
- CTSO Support
- Mentorship
- · Classroom Speaker
- Internship/Mentorship Placement
- · Competitive Event Judging
- · Awards/Recognition Support
- · Career Transitions for Students with Special Needs and/or At-Risk Students

WE ARE LOOKING FOR BUSINESS/INDUSTRY THAT WILL BE WILLING TO:

- Commit to work with schools for the school year and have active participation in a career pathway.
- Attend a one-hour pathway advisory council meeting (once a semester).
- Display your Career Development Partnership, such as a decal or partnership certificate in your place of business.
- Like and follow FCS/College & Career Development on Facebook, Instagram, and Twitter. Share photos, stories of success, and events.
- Report volunteer activities in our Career Development Platform.
- Maintain a working relationship with a Pathway Leader or Career Development Coordinator, and alert school and FCS of any changes.



www.forsyth.k12.ga.us/ctae



Throughout career and technical education curriculum in Forsyth County, occupational dress codes are studied as part of the pathway. In addition, students are taught and shown examples of proper interview attire in preparation for community Mock Interview Weeks, CTSO events, scholarship interviews, graduation ceremonies, and other important times during their high school careers. Because of the emphasis placed on appropriate dress, all high schools implement Dress for Success Days several times each school year. Overall, this program seeks to remind students that clothing and appearance are important parts of making a good impression.

DRESS FOR SUCCESS DAYS ALLOW STUDENTS TO:

- Foster confidence and continue to develop a positive self-image
- · Understand the importance of dressing well for an interview
- · Analyze various types of attire for the workplace
- · Describe components of acceptable dress for an interview
- Explain various definitions of business casual dress and discuss why companies have different definitions of business casual

ESSENTIAL COMPONENTS OF DRESS FOR SUCCESS DAYS:

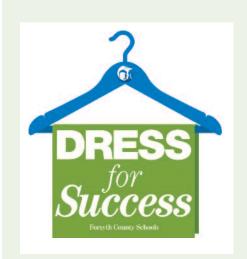
- Campus Impact: Students around the school campus not involved in a career pathway or CTSO learn more about the importance of looking your best!
- Family/Community Connections: Local business/industry are able to demonstrate and speak to classes about proper interview attire and bring samples for students to see.
- CTSO Connection: Students learn how proper dress will impact them in student competition related to their career pathway.
- Service Learning Projects: Students are encouraged to organize service learning projects around dressing successfully. This may come through organizing a professional interview clothing drive or selling awareness bracelets, stickers, etc. to support their CTSO.

SPECIALTIES

DRESS FOR SUCCESS

FOR ADDITIONAL INFORMATION Contact vlowe@forsyth.k12.ga.us or visit www.forsyth.k12.ga.us/ctae today!











CTI

Career and Technical Instruction

Georgia Career and Technical Instruction (CTI) is an organization which provides an avenue for students with disabilities to learn self-advocacy, career exploration and the skills needed for successful transition into their career goals after graduation. Georgia CTI is not organization based on membership. This is achieved through the local CTI Coordinator who works with each CTI student enrolled in a CTAE course. Once a CTI student has declared a career pathway based on assessments, aptitude and interest testing, it is encouraged that the student join the GA CTSO that best fits his/her career interest if available in their local school.

Applicable Pathways: All CTAE Career Clusters and Pathways.





Distributive Education Clubs of America

DECA is a co-curricular organization for students who have a career interest in marketing, finance, hospitality and tourism, entrepreneurship, management, or business administration. DECA allows students to compete and learn about marketing skills needed to be successful in today's business world. DECA currently operates in the over 4,000 high schools in many different countries including Mexico, Germany, Puerto Rico, and Canada. As an organization, DECA holds an annual Fall Leadership Conference that sharpens the skills and techniques of the attendees. At the annual state conference, students are also allowed to compete in a range of areas including Sports and Entertainment Marketing, Apparel and Accessories, Automotive, Restaurant Management, Accounting and many more. There is over \$300,000 of scholarship money from DECA's corporate sponsors available to its members. DECA gives students the chance to work with real business partners and can open the door for future employment opportunities. DECA allows its members to grow as leaders who can positively impact their community.

Applicable Pathways: Marketing and Management, Fashion Marketing, Sports and Entertainment, Marketing Communications and Promotion, Hospitality and Tourism, Finance, and Business Management and Administration.

SPECIALTIES

CAREER & TECHNICAL STUDENT ORGANIZATIONS

CTSO CORE VALUES

Career and Technical Student
Organizations (CTSO) are designed to build
character and develop leadership abilities
of high school students. CTSO's promote
active community involvelemt, providing
service to others, and participation in
competitive events with other high school
students across the state. Involvement in
CTSO's provide valuable life lessons and
educaitonal experiences to prepare students for success in today's society.

Commitment To create among members, educators and business and industry an adherence and appreciation for all Career, Technical and Agricultural Education Programs.

Conviction To develop patriotism through knowledge of our nation's heritage and practice of democracy.

Education To create enthusiasm and empower students to become lifelong learners.

Integrity To deal honestly and fairly with one another.

Leadership To develop leadership abilities through participation in educational, professional, community and social activities.

Professionalism To promote high standards in career ethics, workmanship, scholarship and safety.

Recognition Appreciation of the value of achievement.

Service To cultivate a desire to contribute to the benefit and welfare of others

Teamwork To enhance the ability of students to plan together, organize and carry out worthy activities and projects through the use of the democratic process.

SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Lambert High School **Denmark High School** North Forsyth High School Forsyth Academy South Forsyth High School Forsyth Central High School Forsyth Virtual Academy West Forsyth High School







Future Business Leaders of America

Georgia FBLA is a nonprofit student organization committed to preparing today's students for success in business leadership. With over 50 years of experience, Georgia FBLA is the premiere organization for student leaders. Georgia FBLA is an affiliate of Future Business Leaders of America-Phi Beta Lambda, Inc., the largest student business organization in the world with more than 250,000 members. Georgia is also the largest FBLA chapter in the nation with over 20,000 members. FBLA is an important partner in the success of school-to-work programs, business education curriculums, and student leadership development. FBLA is recognized by the U.S. Department of Education and Labor as an integral part of a co-curricular approach to business and leadership education. The FBLA mission is to bring business and education together in a positive working relationship through innovative leadership and career development programs. We bring our mission to life through the application of our motto: Service, Education, and Progress. Applicable Pathways: Computer Science, Financial

Services, Accounting, Entrepreneurship, Human Resources Management, Programming, Web Development, Networking.





FCCLA is a national student organization that helps young men and women become leaders and address important personal, family, work, and social issues through family and consumer sciences education. Through cooperative and competitive programs, FCCLA members develop skills for life including character development, creative and critical thinking, interpersonal communication, practical knowledge, and career preparation. Participation in national programs and co-curricular chapter activities enables FCCLA members to learn cooperation, take responsibility, develop leadership, and give service.

Applicable Pathways: Family and Consumer Sciences, Culinary Arts, Human Services, Education.





An Association of Agricultural Students

FFA represents the relevancy to the core areas offering students opportunities that change lives and prepares students for premier leadership, personal growth and career success. Founded in 1928, the FFA organization represents a large diversity of over 300 careers in the food, fiber, and natural resources industry. FFA is an integral part of a school system. FFA uses agricultural education to create real-world success. Agriculture teachers become advisors to local FFA chapters, which students join. More than 7,000 FFA chapters are currently in existence; their programs are managed on a local, state and national level. Each chapter's Program of Activities is designed with the needs of the students in mind. Activities vary greatly from school to school, but are based in a well-integrated curriculum. Chapter activities and FFA programs concentrate on three areas of our mission: premier leadership, personal growth, and career success. The FFA motto gives members twelve short words to live by as they experience the opportunities in the organization. Learning to Do, Doing to Learn, Earning to Live, Living to Serve.

Applicable Pathways: Agriculture Leadership, Animal Science, Plant Science/Horticulture, Veterinary Science, and Agriculture Mechanics.





FIRST was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, NH, the 501(c)(3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills. FIRST is More Than Robots. FIRST participation is proven to encourage students to pursue education and careers in STEM-related fields, inspire them to become leaders and innovators, and enhance their 21 st century work-life skills.

Applicable Pathways: Engineering, Manufacturing, Mechatronics.

SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Denmark High School Forsyth Academy Forsyth Central High School Forsyth Virtual Academy West Forsyth High School







HOSA Health Occupations Students of America

Health Science Technology Education (HSTE) is a national student organization that provides a unique program of leadership development, motivation, and recognition exclusively for secondary, post-secondary, collegiate, and adult students enrolled in health occupations education courses or instructional programs. HOSA is an integral part of approved health occupation programs. Health Science Technology Education (HSTE) students who become active members in a local HOSA chapter are eligible for membership in state and national HOSA. The mission of HOSA is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill and leadership development of all health occupations education students, therefore helping the students to meet the needs of the health care industry. For more information, go to www.hosa.org or www.georgiahosa.org.

Applicable Pathways: Diagnostic Services, Health Informatics, Therapeutic Services, Physical Medicine, Biotechnology Research & Development, Sports Medicine.





Georgia SkillsUSA members participate in local, state, and national activities provided through trade and industrial, technical, and health occupations courses and programs. The mission of SkillsUSA is to develop leadership skills and workplace competencies that students will need to success in a constantly changing global workplace. The organization provides many opportunities for leadership development and skills training. Competition in over 70 leadership, health occupations, occupationally related, and trade, industrial, and technical contests is offered at the region and state levels, culminating with the SkillsUSA Championships in Kansas City, Missouri, in June.

Applicable Pathways: Fire Fighting, Flight Operations, Graphic Design, Law and Justice, Transportation, A/V Technology, Digital Animation, Cosmetology, Personal Care Services.





Georgia Technology Student Association (GA TSA) is committed to providing students with opportunities to excel and advance as part of their instruction in technology education. Georgia TSA promotes technology education as a means of preparing students for a dynamic world, inviting them to become critical thinkers, problem solvers, and technologically literate leaders. The mission of GA TSA is to prepare its members to be successful leaders and responsible citizens in a technological society through co-curricular activities with the technology education program, thereby developing communication, leadership, and competitive skills.

Applicable Pathways: Energy Systems, Engineering, Manufacturing, Mechatronics.



JA DISCOVERY CENTERS

ja biztown & ja finance park

ANNUAL IMPACT

STUDENTS 80,000 **VOLUNTEERS** 15,000 **TEACHERS** 5,000

PARTNERS 300

TOTAL IMPACT TO DATE

STUDENTS 170,000+

LEARNING HOURS 4,700,000+

SCHOOL SYSTEM PARTNERS

ATLANTA PUBLIC SCHOOLS

CALHOUN CITY SCHOOLS

DAWSON COUNTY SCHOOLS

DEKALB COUNTY SCHOOLS

FORSYTH COUNTY SCHOOLS

FULTON COUNTY SCHOOLS GAINESVILLE CITY SCHOOLS

GWINNETT COUNTY PUBLIC SCHOOLS

HALL COUNTY SCHOOLS

LUMPKIN COUNTY SCHOOLS

MARIETTA CITY SCHOOLS

PRESENTED BY:



















(f) (D) (D) (in) georgia.ja.org | @jageorgia

OVERVIEW

Through the JA Chick-fil-A Foundation Discovery Center in Atlanta, the JA Discovery Center at Gwinnett and the Mike & Lynn Cottrell JA Discovery Center at North Georgia, a quarter of all middle school students in Georgia participate in the unique and innovative learning delivered by JA BizTown and JA Finance Park. These 360-degree programs bring relevance, authenticity and application into the traditional learning model in order to energize students around academics and their future possibilities.

MODELS

JA BizTown

An unforgettable experience where students interact within a simulated economy and take on the challenge of fueling a business. Here, students discover the intricacies of being a member of the community, while exploring a myriad of opportunities awaiting their futures.

JA Finance Park

An authentic simulation where students experience their financial futures. Guided by their 'life situation,' students apply knowledge gained in the classroom to make routine budget decisions; ultimately, building skills to confidently navigate today's economic environment.

MEASUREMENTS OF SUCCESS

With a focus to engage students in learning and provide all children the opportunity to develop the knowledge, skills, and confidence to thrive, JA collaborated with partners and thirdparty evaluators to develop an evaluation framework that measures key indicators to drive students' success in academics and beyond:

Student Engagement

Through authentic, experiential and relevant programming, students exhibit positive increases in behavioral and cognitive engagement in academics.

Content Knowledge

With both in-class and on-site learning, students develop foundational economic, business and financial literacy concepts.

Skills & Techniques

Students apply higher-order thinking and problem-solving techniques as well as postsecondary, transferable skills within the context of a real-world setting.

Relevance of Education

Students discover the connections between academic lessons and realworld application in order to understand the influence of education on future opportunities.

OUTCOMES

More Than 90% of Teachers Observed Their Students Effectively Integrating



Application of Content Knowledge

VOLUNTEERS OBSERVED STUDENTS UNDERSTANDING HOW SAVINGS AND INVESTING, AND THE AMOUNT THEY PUT TOWARDS EACH, IMPACTS THEIR FUTURE FINANCIAL WELL-BEING.

Realization of Relevance of Education

TEACHERS BELIEVED PARTICIPATION HELPED STUDENTS UNDERSTAND IMPORTANCE OF SETTING 'REAL-WORLD' LONG-TERM GOALS.



professionals to showcase their business/industry in the following career pathway areas:

Engineering/Manufacturing **Graphic Design** Healthcare Hospitality/Tourism Information Technology Law/Criminal Justice Marketing Mechatronics **Public Safety** ROTC

Agriculture/Animal Science **Audio Visual Technology Automotive Technology** Aviation/Aerospace **Biotechnology Business/Finance** Cosmetology Culinary Arts/Food Science **Education** Energy

Pathway Engagement with High School Teachers **Career Counseling Opportunities Career Pathway Education Industry Booth Showcase**

> November 14-15, 2019 **Forsyth Conference Center**

3410 Ronald Reagan Boulevard Cumming, Georgia 30041

Come showcase your business and profession to Forsyth County middle school students!

Come share your personal and professional story with area students in an environment where they can ask questions and learn from you about what experience and education is needed for various occupations. Our students are eager to learn about high school and college opportunities in which they are passionate and interested!

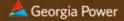
> Come help the next generation of Forsyth County explore the many career possibilities that await them! This free event will impact thousands of middle school students.



Sign up today to reserve your display table: https://tinyurl.com/yarnmu78

Questions? Contact Valery Lowe at vlowe@forsyth.k12.ga.us or Laura Stewart at Istewart@cummingforsythchamber.org.







OF CUMMING-FORSYTH COUNTY

1100 Lanier 400 Parkway | Cumming, Georgia 30040

Ms. Brandi Cannizzaro, Principal bcannizzaro@forsyth.k12.ga.us



CAREER AND TECHNICAL STUDENT ORGANIZATIONS













HONOR SOCIETIES

Beta Club Mu Alpha Theta National Honor Society National Technical Honor Society Academic Honor Societies

SIX INTEREST-THEMED ACADEMIES



SCHOOL OF AEROSPACE & LOGISTICS

Aviation Maintenance Distribution and Logistics Flight Operations



SCHOOL OF CRIMINAL JUSTICE & LAW

Applications of Law Criminal Investigations Legal Services



SCHOOL OF CYBERSECURITY & DIGITAL INTELLIGENCE

Computer Science Cybersecurity Game Design: Animation & Simulation



SCHOOL OF HEALTHCARE & FIRST RESPONDERS

Emergency Medical Responder Fire and Emergency Services Healthcare Information Technology



SCHOOL OF HOSPITALITY & DESIGN

Graphic Design Hospitality and Tourism



SCHOOL OF MECHATRONICS & ENERGY

Energy Systems Mechatronics



ONE OF **AMERICA'S** COLLEGES

FORBES

ONE OF THE REGION IN THE SOUTH

U.S. NEWS & WORLD REPORT

ONE OF THE NATION'S COLLEGE

FORBES

A **NATIONAL TOP-PRODUCER OF FULBRIGHT STUDENTS** 2018 AND 2019

Blue Ridge • Cumming • Dahlonega • Gainesville • Oconee • ung.edu UNG is designated as a State Leadership Institution and as The Military College of Georgia".



Great Careers Begin Here!



43 exciting program areas filled with High Demand/High Wage Jobs



We're training YOU for Georgia's **MOT** Careers to 2026!

Associate Degree Programs

(with Annual Wages & Job Openings) Dental Hygienist - \$63,800 with 200 jobs

Physical Therapist Assistant - \$55,700 with 110 jobs

Radiologic Technologist - \$52,500 with 180 jobs

Registered Nurse - \$64,100 with 2,980 jobs

Web Developer - \$79,300 with 140 jobs

Diploma Programs

(with Annual Wages & Job Openings) Computer Support Specialist - \$52,700 with 570 jobs

Automotive Body/Related Repairers - \$49,700 with 150 jobs

Supervisors of Construction Trades - \$59,000 with 380 jobs

Office Supervisors - \$56,800 with 1,160 jobs

Source: Georgia Department of Labor



LANIER 28 Courses Guaranteed to Transfer* to UNG, UGA, GA Tech, and Other Public Universities in Georgia

Close By! • Affordable! • Class Options!

The 28 courses listed below will transfer* to any school within the University System of Georgia.

*Guaranteed Transfer with a grade of C or better

Technical College System of Georgia		University System of	USG Area option if USG
(title, prefix, & number)		Georgia Equivalent	equivalent not available
American Government	POLS 1101*	POLS 1101	Area E – Social Sciences
American Literature	ENGL 2130	ENGL 2130	Area C – Humanities, Fine Arts, & Ethics
Art Appreciation	ARTS 1101	ARTS 1100 - 1107	Area C - Humanities, Fine Arts, & Ethics
Biology Introduction I	BIOL 1111	BIOL 1111	Area D – Natural Sciences, Math, & Technology
	BIOL 1111L	BIOL 1111L	Non – Majors biology credit
Biology Introduction II	BIOL 1112	BIOL 1112	Area D – Natural Sciences, Math, & Technology
	BIOL 1112L	BIOL 1112L	Non – Majors biology credit
Calculus	MATH 1131	MATH 1131	Area A2 – Quantitative Skills
			Area D – Natural Sciences, Math & Tech
Chemistry I (Intro)	CHEM 1151	CHEM 1151	Area D – Natural Sciences, Math, & Technology
	CHEM 1151L	CHEM 1151L	Non – Majors chemistry credit
Chemistry II (Intro)	CHEM 1152	CHEM 1152	Area D – Natural Sciences, Math, & Technology
, , , , , , , , , , , , , , , , , , , ,	CHEM 1152L	CHEM 1152L	Non – Majors chemistry credit
College Algebra	MATH 1111	MATH 1111	Area A2 – Quantitative Skills
Economics (Macro)	ECON 2105	ECON 2105	Area E for Non - Majors
Economics (Micro)	ECON 2106	ECON 2016	Area E for Non - Majors
Economics (Principles)	ECON 1101	ECON 1101	Area E – Social Sciences
English Composition I	ENGL 1101	ENGL 1101	Area A1 –Communication
English Composition II	ENGL 1102	ENGL 1102	Area A1 –Communication
Humanities (Intro)	HUMN 1101	HUMN 1101	Area C – Humanities, Fine Arts & Ethics
Math Modeling (Intro)	MATH 1101	MATH 1101	Area A2 – Quantitative Skills
Pre – Calculus	MATH 1113	MATH 1113	Area A2 or Area D
Physics I (Intro)	PHYS 1111	PHYS 1111	Area D – Natural Sciences, Math, & Technology
	PHYS 1111L	PHYS 1111L	Non – Majors physics credit
Physics II (Intro)	PHYS 1112	PHYS 1112	Area D – Natural Sciences, Math, & Technology
	PHYS 1112L	PHYS 1112L	Non – Majors physics credit
Psychology (Intro)	PSYC 1101	PSYC 1101	Area E – Social Sciences
Public Speaking	SPCH 1101	COMM 1100-1110	Area B – Institutional Options
			Area C – Humanities, Fine Arts & Ethics
Quantitative Skills & Reasoning	MATH 1103	MATH 1001	Area A
Sociology (Intro)	SOCI 1101	SOCI 1101	Area E – Social Sciences
Statistics (Intro)	MATH 1127	MATH 1127	Area D – Natural Sciences, Math, & Technology
			(not approved in the USG for Area A)
US History 1	HIST 2111**	HIST 2111	Area E – Social Sciences
US History II	HIST 2112**	HIST 2112	Area E – Social Sciences
World History I	HIST 1111	HIST 1111	Area E – Social Sciences
World History II	HIST 1112	HIST 1112	Area E – Social Sciences

This table applies if the accepting USG institution offers a comparable course

^{*}Satisfies US and GA Constitution legislative requirements

^{**}Satisfies US and GA History legislative requirements





Find Your Passion! High School Career Pathway Options





ALLIANCE ACADEMY FOR INNOVATION

Emergency Medical Responder Aerospace/Flight Operations Distribution & Logistics Aviation Maintenance Cybersecurity

Energy Systems Game Design Firefighting

Health Information Technology **Graphic Design**

Law Enforcement Services Hospitality & Tourism Application of Law Legal Services/

Mechatronics

Little Mill MS Lakeside MS **Piney Grove MS**

DeSana MS



DENM&RK HIGH SCHOOL

FORSYTH CENTRAL High School

DENMARK High School

Automotive Technology A/V Technology

Companion Animal Systems

Engineering & Technology Computer Science Biotechnology Cosmetology

Engineering & Technology

Culinary Arts

Fashion Marketing

Financial Services

Manufacturing

Entrepreneurship

Marketing & Management Marketing Communications Sports & Entertainment & Promotions

Marketing & Management

Sports & Entertainment

Marketing

Food & Nutrition

Teaching as a Profession Veterinary Science Marketing

Teaching as a Profession

Veterinary Science

Web Development

South Forsyth MS Riverwatch MS



LAMBERT High School

Engineering & Technology Diagnostics/Phlebotomy Advanced Accounting **Business Accounting** Computer Science A/V Technology Biotechnology Culinary Arts

Entrepreneurship Financial Services

Fashion Marketing Food & Nutrition

Aarketing & Management Teaching as a Profession Sports & Entertainment Programming Marketing

Teaching as a Profession

Sports Medicine

Web Development

North Forsyth MS Little Mill MS Liberty MS



NORTH FORSYTH High School

Animation & Digital Media Agricultural Leadership in Animal Production A/V Technology in Horticulture

Environmental Agriculture Engineering & Technology Computer Science Food & Nutrition

Marketing Communications Marketing & Management Sports & Entertainment Manufacturing & Promotions Programming

Marketing & Managemen

Internet of Things

Systems

JROTC - Marines

Sports & Entertainment

Marketing

South Forsyth MS Piney Grove MS Lakeside MS



SOUTH FORSYTH High School

Healthcare - LTC Dual Enrollement Engineering & Technology **Business Accounting** Computer Science Entrepreneurship Fashion Marketing Financial Services A/V Technology Culinary Arts

Human Resources Management andscape Management Systems Teaching as a Profession

Vickery Creek MS Piney Grove MS Liberty MS

School Choice Application Process

Town the Mental



Academy

-ORSYTH

WEST FORSYTH High School

Human Resources

Management

Entrepreneurship

Marketing & Management

> Engineering & Technology Computer Science A/V Technology Cosmetology Culinary Arts

School Choice Application Process

Sports & Entertainment Fashion Marketing Food & Nutrition Marketing & Management

ORSYTH VIRTUAL Academy

Teaching as a Profession Web Development Marketing

Marketing & Management Sports & Entertainment Marketing **Business Accounting** Web Development Computer Science Financial Services Game Design

torer and technical education have the opportunity to apply for Honors Mentorship (job shadowing) or Work-Based Learning (internships) within their pathway. Visit www.forsyth.k12.ga.us/ccd for more information or contact a Career Development Coordinator!

