# CAREER and TECHNICAL Education 2023-2024

ROA





**High School Career Pathway Options** ind your Passion!



Aerospace/Flight Operations Financial Technology (FinTech) Healthcare - Clinical Lab Healthcare - Emergency Healthcare - Emergency Hospitality, Recreation & Tourism International Business Public Management **Computer Science** Medical Responder Application of Law Medical Technician Law Enforcement/ Drone/Unmanned Aircraft Systems Energy Systems Forensic Science Graphic Design Legal Services/ Mechatronics Cybersecurity Firefighting Game Design

Aarketing & Management

sports & Entertainment

Marketing



A/V Technology & Film AST FORSYTH High School Artificial Intelligence Cloud Computing

Early Childhood Education Construction/Carpentry Architecture/Drafting **Computer Science** Entrepreneurship **Culinary Arts** & Promotions & Design

> Fashion Marketing Financial Services

Entrepreneurship

Interiors, Fashion, & Textiles leavy Equipment Operations Marketing Communications Engineering & Technology Marketing & Management

Teaching as a Profession

Healthcare - Biotechnology Marketing & Management Film Production

Marketing Communications & Promotions Nutrition & Food Science **Teaching as a Profession** Sports & Entertainment Marketing Veterinary Science

feaching as a Profession

Veterinary Science



A/V Technology & Film **Business Accounting** Computer Science Cloud Computing Culinary Arts

Automotive Technology

Cloud Computing

**Companion Animal Systems** 

**Computer Science** 

**Culinary Arts** 

A/V Technology & Film

FORSYTH CENTRAL High School

Healthcare - Biotechnology Engineering & Technology Financial Services

Engineering & Technology

Engineering & Technology

Cosmetology

**Computer Science** 

Healthcare - Sports Medicine Marketing Communications & Promotions Healthcare - Phlebotomy

Marketing & Management Nutrition & Food Science Sports & Entertainment Marketing

Teaching as a Profession

Workforce Ready



A/V Technology & Film Advanced Accounting SOUTH FORSYTH High School A/V Technology & Film

A/V Technology & Film

WEST FORSYTH High School

Computer Science

Cosmetology **Culinary Arts** 

**Computer Science** 

Culinary Arts

Engineering & Technology Computer Science

Public Health Healthcare -Healthcare -

Engineering & Technology

Entrepreneurship

Marketing Communications **IROTC - Marines** sports Medicine

Fashion Marketing Human Resources

Allied Health and Medicine

Management

Healthcare

Junior Achievement

Engineering & Technology

**Fashion Marketing** 

Marketing & Management & Promotions

Marketing Communications & Promotions Marketing & Management

Management Systems

Landscape

Marketing & Management **3DE Leadership Academ**)

Nutrition & Food Science Sports & Entertainment

Nutrition & Food Science

Teaching as a Profession Sports & Entertainment Marketing

Veterinary Science Web Development

Teaching as a Profession

Sports & Entertainment

Marketing

Programming

**Feaching as a Profession** 

Marketing

Web Development

opportunity to apply for Internship Forsyth (work-based learning) All students enrolled in career and technical education have the

or Mentorship Forsyth (job shadowing) within their pathway. Visit www.forsyth.k12.ga.us/ctae for more information or contact a Career Development Coordinator.

Marketing & Management Sports & Entertainment Web Development

**Business Accounting** Computer Science Financial Services Game Design

feaching as a Profession & Administration



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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 classwork 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.



# FORSYTH COUNTY SCHOOLS

1160 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
- Architecture and Construction
- 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 1160 Dahlonega Highway Cumming, GA 30040 vlowe@forsyth.k12.ga.us 770-887-2461 x 202247

# 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.

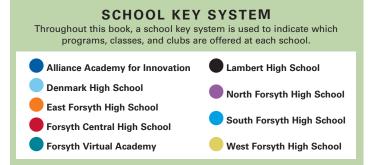
# SCHOOL KEY SYSTEM Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. Alliance Academy for Innovation Lambert High School Denmark High School North Forsyth High School Forsyth Central High School South Forsyth High School Forsyth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

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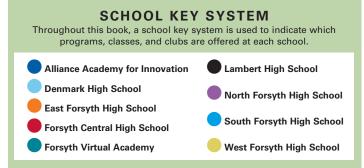
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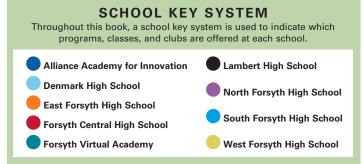
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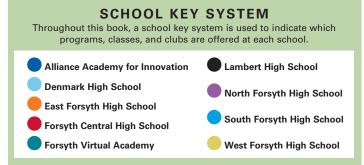
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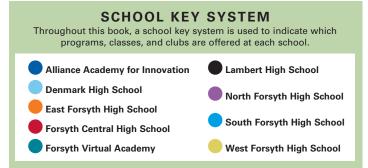
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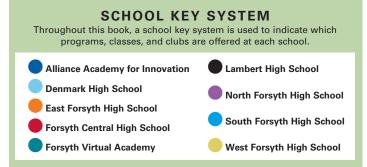
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FCS College and Career Development seeks to provide an ongoing partnership between education and business/industry to prepare the students of Forsyth County with the skills necessary to meet world-class standards, successfully continue life-long learning, 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 post-secondary 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: Flight Operations
- Agriculture
- Architecture and Construction
- Arts, A/V Technology, and Communications
- Biotechnology Research and Development
- Business, Management, and Administration
- Computer Science
- Cosmetology
- Culinary Arts
- Cybersecurity
- Distribution and Logistics
- Drone/Unmanned Aircraft
- Education
- 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
- Healthcare Science
- Hospitality and Tourism
- Human Resource Management
- Interior Design
- Law Enforcement: Criminal Investigations
- Legal Services
- Manufacturing
- Marketing and Management
- Mechatronics
- Programming
- Sports and Entertainment Marketing
- Sports Medicine
- Transportation/Automotive Service Technician
- Web Development



A career pathway is a coherent, articulated sequence of rigorous academic and career-related courses starting in the ninth or tenth grade and lead to an industry-recognized certificate or licensure, possible post-secondary credit, and assist students in their transition to the workforce, military, or post-secondary education. It allows students an educational plan in high school that prepars students for future careers, jobs, or occupations. Career, Technical, and Agricultural Education (CTAE) provides students with the opportunity to select at least three sequenced courses in a career pathway. 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.

**CTAE PATHWAY COMPLETER**: A pathway completer is a student who earned 1 unit of credit per course for the following: an introductory course plus two sequential courses within a state recognized Georgia CTAE Pathway. The selection of a pathway is based on self-awareness and the investigation of occupations plus related educational levels aligned with the pathway. Most highdemand, 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.

# WHAT ARE CAREER PATHWAYS?

# 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.



# CAREER CLUSTERS

# 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.

### ARCHITECTURE AND CONSTRUCTION

Careers with common knowledge and skills related to the designing, planning, managing, and building structures. Trade and Industrial Education programs equip students with the knowledge, skills, and attitudes necessary for successful employment in the trade and industrial field and for further education.

### 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.

### ENERGY

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 Architecture and Construction

Introduction to Architecture and Construction (Grade 6) Fundamentals of Architecture and Construction (Grade 7) Exploring Architecture and Construction (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 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.

Forsyth County Schools COLLEGE COLLEGE

**Middle School Career Pathway Options** Nais

VICKERY CREEK	A/V Engineering & Junior Achievement Entrepreneurship & Financial Literacy Marketing
South Forsyth Middle School	Business Management & Finance Engineering & Technology Healthcare Junior Achievement Entrepreneurship & Financial Literacy Marketing
RIVERWATCH	A/V Business Business Management & Finance Computer Science Engineering & Technology Healthcare Junior Achievement Entrepreneurship & Financial Literacy Marketing
PINEY GROVE	Engineering & Junior Junior Achievement Entrepreneurship & Financial Literacy Marketing
OTWELL Middle School	Agriculture Career Development Engineering & Technology Family & Consumer Science – Food and Nutrition Junior Achievement Entrepreneurship & Financial Literacy Marketing
North Forsyth Middle School	Agriculture Engineering & Junior Achievement Entrepreneurship & Financial Literacy Leadership & Career Development
Mustands Interestion	Business Management & Finance Computer Science Construction Junior Achievement Entrepreneurship & Financial Literacy
LIBERTY Muddle School	Agriculture Computer Science Engineering & Junior Achievement Entrepreneurship & Financial Literacy Marketing
LaKESIDE	Computer Science Engineering & Technology Healthcare Junior Achievement Entrepreneurship & Financial Literacy Leadership & Career Development Marketing
HENDRICKS	A/V Computer Science Engineering & Junior Achievement Entrepreneurship & Financial Literacy Leadership & Career Development Marketing
DESANA	Career Development Computer Science Engineering & Junior Achievement Entrepreneurship & Financial Literacy Marketing



# NONTRADITIONAL OCCUPATIONS AND RESOURCES

# **CAREER PLANNING RESOURCES**

# 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.caeeronestop.orrg

Sponsored by the U.S. Department of Labor, CareerOneStop is your source for career exploration, training, and jobs.

# www.ctaern.org

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

# https://dol.georgia.gov/get-occupationaltrends

Occupational information, including projected employment and wages, is vital in career exploration, education and training program development, and economic development. This site provides Occupational Outlook, Georgia job information, hot careers, and STEM careers!

# https://explorer.gdol.ga.gov/vosnet/ Default.aspx

Georgia LaborMarket Explorer is an online resource for your employment needs!

# http://gacareerpipeline.gadoe.org/

Georgia's Career Pipeline is provided to assist Georgia businesses locate local young talent with the skills needed for the field or industry. Businesses can use this information to make decisions concerning growth, development, and workforce needs.

# www.gafutures.org

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

# www.onetonline.org/

O\*NET OnLine is a tool for career exploration and job analysis and has detailed descriptions of the world of work use by job seekers, workforce development and HR professionals, students, researchers, and more!

# **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.

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kills and Abilities         advanced skills required       Image: moderate skills reprint the skill	d	duct. Thinking p	Service Device Device Solving	List. Orientedit. Making	Oral E Adding Reading	1	1	ilitie /	1	Const. Comprehence	Comming Training to Others	Contracting O. Teaching Co.	Interest Machinesthe Organis-	Manual With C. Spect Equipment	Phine Processoo , pullers	1.0	Sch		2019 Edition . Comments R. Promite Units	Occus 2018-28 Annual Open.
Health Specialties Teachers, Postsec	•	•	•		•		•	•	•	•	•	0	•	•	0	•	•	•	\$113,900	710
Pharmacists						0					F	0			-		0		\$113,200	630
Physical Therapists	0				-	-						-				-			\$82,300	440
Physicians & Surgeons, All Other	0			-						0	-	-					0	-	\$224,200	570
Physicians & Ourgeons, An Ourier	19			-	-	-	-	-	-	-	-		-	-	-	-		-	\$224,200	570
Education Administrators, Elem & Sec	•					1		•			•	0						•	\$91,200	810
Educational, Guidance, School, & Voc Counselors										0									\$53,900	1.430
Healthcare Social Workers															-	0			\$50,600	450
Instructional Coordinators						-			•						-		0		\$63,700	1,340
Nurse Practitioners												0		-			-		\$101,800	660
Physician Assistants						0	-			0		-	-				0		\$98,400	410
Physician Assistants		-	-		-		-	-	-	-	-		-	-		-	19	-	\$90,400	410
Accountants & Auditors	•					o			1					-					\$71,900	4 890
Administrative Services Managers						-					-				-				\$110,000	910
Architectural & Engineering Managers						-					-								\$134,700	410
Business Operations Specialists, All Other	0		0							0		0			0				\$71,100	4.340
Civil Engineers			0			-					-	0			-				\$77.400	860
	-	-	-	0	-	-	-					-	-		Ō		•			980
Clinical Lab Technologists & Technicians	•		•	-	•	-				•	•	•	•		0		0	-	\$48,000 \$136,300	
Computer & Information Systems Managers	•	•	0		•	-	•	•			•	-	•	•	-	•	•	•	A	
Computer Occupations, All Other	•	•	0	•	•		•	•		•	•		•			•	•	•	\$86,000	Contraction of the local division of the loc
Elementary School Teachers, Exc Spec Ed	•	•	•	•	•	-	•	•	•	•	•		•	•	-	•	•	•		
Engineers, All Other	•	•	0	•	•		•	•		۰		0	•	•		•	0	•	\$89,300	400
Financial Analysts	•	•	-	•	•	-	٠	•			•		•	•	-	•	0	•	\$79,900	790
Financial Managers	•	•		•	•		•	•		•	•		•	•	-	•	•	•	\$138,200	
Financial Specialists, All Other	•	•	0	•	•		•	•		•	•		•	•		•	0	•	\$81,100	530
General & Operations Managers	•	•	•	•	•		٠	•		•	•		•	•		•	•	•	\$107,400	
Human Resources Managers	0	•	•	٠	•		٠	•	٠	٠	•		•	•		•	•	•	\$120,000	570
Human Resources Specialists	0	•	0	0	•		•	٠		•	•		٠			٠	•	•	\$57,100	
	•	•		•	•		٠	•		•	•	•	•	•		•	•	•	\$82,200	680
Industrial Engineers		•	Ó	٠	٠		٠	٠		٠	•	0	•	•		٠	•	•	\$98,600	440
Industrial Engineers Industrial Production Managers	-		0		٠		٠	٠	٠	٠				•			•	•	\$51,600	590
Industrial Engineers	•		-	-		1.000		1.4		1	14						•		\$71,100	790
Industrial Engineers Industrial Production Managers	•	•	٠	٠	•	1	٠	•						-	-	19	-	-		
Industrial Engineers Industrial Production Managers Kindergarten Teachers, Exc Spec Ed			•	•	•		•	•		•	•		•	•		•	•	•	\$67,100	800
Industrial Engineers Industrial Production Managers Kindergarten Teachers, Exc Spec Ed Loan Officers	•	•	1	0	-			•		•	•		•	•		•		•		800 2,980

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Health Specialties Teachers, Postsec	•	•	•	•	•		•	•	•	•	•	0	•	•	0	•	•	•	\$113,900	710
Pharmacists	•	•	•	۰	٠	0	•	٠	•	•		0	•	•		•	0	•	\$113,200	630
Physical Therapists	0	٠	•	٠	٠	•	٠	٠	٠	٠	•		٠	٠	۲	•	٠	•	\$82,300	440
Physicians & Surgeons, All Other	0	٠	٠	٠	•		٠	٠	٠	0	٠		٠	٠		٠	0	٠	\$224,200	570
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Education Administrators, Elem & Sec	•	•	•	•	•	E.	٠	•	•	•	•	0	•	•		•	•	•	\$91,200	810
Educational, Guidance, School, & Voc Counselors	•	•	•	•	•		٠		٠	0	٠	1.		•		•	•	•	\$53,900	1,430
Healthcare Social Workers	•	•	٠	•	•		٠	•	٠	•	•		•	•		0	٠	•	\$50,600	450
Instructional Coordinators	•	•	•	•	٠		•	•	٠	٠	•		•	•		•	0	۰	\$63,700	1,340
Nurse Practitioners	•		•	•	•		٠		•	٠	•	0	•	•		•	•	٠	\$101,800	660
Physician Assistants	•		•		•	0	•	•	٠	0	•		•	•		٠	0	•	\$98,400	410
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Accountants & Auditors	•	•	1	•	٠	0	•	•			•		•			•	•	•	\$71,900	4,890
Administrative Services Managers	•	•	•		•			•					•			•	•	•	\$110,000	910
Architectural & Engineering Managers	•			٠	•		•	•		•	•		•	•		•	•		\$134,700	410
Business Operations Specialists, All Other	0	•	0		•	•	•	•		0	•	0	•	•	0	•	•	•	\$71,100	4,340
Civil Engineers		•	0		•		•	•		•		0	•	•		•	•	•	\$77.400	860
Clinical Lab Technologists & Technicians			•	0	•		•		•	•	•	•	•		Ō		0		\$48,000	980
Computer & Information Systems Managers	•	•	0		•		٠	•		•	•			•		•	•	•	\$136,300	1,310
Computer Occupations, All Other		•	0				•			•	•	Į.	•				•		\$86,000	1,930
Elementary School Teachers, Exc Spec Ed	•	•	•		•		•		•	•	•			•		•	•	•	\$53,800	5,060
Engineers, All Other			Ó		•		•			•		0	•				0		\$89,300	400
Financial Analysts					•		•				•		•			•	0		\$79,900	790
Financial Managers										•									\$138,200	2,040
Financial Specialists, All Other	•	•	0		•		•			•	•					•	0		\$81,100	530
General & Operations Managers			•		•		•	•	-	•									\$107,400	8,960
Human Resources Managers	0		•		•		•		•	•	•		•	•		•	•		\$120,000	570
Human Resources Specialists	0	•	0	0	•		•	•		•			٠			•	•	•	\$57,100	2,450
Industrial Engineers					•			•		•	•			•		•			\$82,200	680
Industrial Production Managers			ò		•		•				•	0	•				•		\$98,600	440
Kindergarten Teachers, Exc Spec Ed		•	0	•			•			•				•			•		\$51,600	590
Loan Officers							•					1			1				\$71,100	790
Logisticians			•		•						•								\$67.100	800
Management Analysts																		6	\$88,600	
Market Research Analysts & Marketing Spec				1	0				-									-	\$63,500	



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

# Georgia Department of Labor, Workforce Statistics & Economic Research

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00 annual openings.	Cilic	dura	Servin	Liston	Oral	Dexte	Reaso	Writte	Assist	Coart	Com	Contr	Intera	Monit	Physic	10	Set	Think	5010	8102
Bactiolar's degree contained	-	-				-				_	-	-	-1	- 1	-					
Marketing Managers	•	•	•	•	•		•	•		•	•		•	•		•	•	•	\$136,100	850
Mechanical Engineers	•	•	0	•	•		•	•		0	•	0	•	•		•	0	•	\$81,000	400
Medical & Health Services Managers	•	•	•	•	•		•	•		•			•	•		•	٠		\$105,900	1,080
Meeting, Convention, & Event Planners	•	•	•	•	•		•	•	•	•	٠	0	•	•	0	•	•	•	\$48,200	420
Middle Schl Teachers, Exc Spec & Career/Tech Ed	•	•	•	•	•		•	•	•	•	•		•	•		•	٠	•	\$55,500	2,310
Personal Financial Advisors	0	•		•	•		•	0	٠	٠	•		•	•		•	•	٠	\$115,000	610
Producers & Directors	•	•	1	•	•		•	•			•		•	•		•	•	•	\$80,700	700
Public Relations Specialists	•	•	٠	•	•		٠	•		•	•	1	٠	•	1	•	٠	•	\$59,200	660
Registered Nurses	•	•	•	•	•	•	•	•	•	•	•	0	•	•	•	•	•	•	\$65,800	Concerning of the second
Sales Managers	•	•	٠	•	•		•	•		•	•		٠	-		•	•	•	\$133,400	
Secondary Schl Teachers, Exc Spec & Career/Tech Ed	•	•	•	•	•		•	•	٠	•	•		•	•		•	•	•	\$55,400	
Securities, Commodities, & Financial Svcs Sales Agents	•	•	0	•	•		•	٠		0	•		•		1	•	•	•	\$72,300	
Social & Community Service Managers	•	•	•	0	•		•	•	•	•	•		•	-	1	•	•	•	\$62,500	
Software Developers, Applications	•	•	-	•	•		•	•	-	0		_	•	•		•	0	•	\$100,400	
Training & Development Specialists	•	•	•		•		•	•	-	•	•		•	•	-	•	•	•	\$61,000	1,210
Computer Network Support Specialists						0			-			0	•	•			•		\$67,600	630
Dental Hygienists	0									0	-					0		-	\$62,600	-
Paralegals & Legal Assistants	0		0						-	-									\$51,600	
Physical Therapist Assistants	0			0								0	•	•	0		0		\$49,800	Contraction of the second s
Radiologic Technologists	•		0			•		•	•			0	•	•	0		0	•	\$54,100	-
Respiratory Therapists	•	•	•	0	•	•	•	•	•	•		•	11	•	•	•	•		\$54,900	430
Proceeding uni-degree overd				-					-				-				-			
Telecom Equip Installers & Repairers, Exc Line Installers	•	•		•	•	•	•	0		0	•	0	•	•	0	•	0	•	\$50,700	1,300
Some college, no degree																				1.14
	•	٠	٠	•	•	0	٠	٠		0		0	٠	•		٠	0	٠	\$50,600	2,200
Computer User Support Specialists							_	1.2												an 1
Computer User Support Specialists High school diplome or equipalent	-	•	•	0	•	•	•	•	•	•	•	0		•	0		•		\$49,900	1,850
Computer User Support Specialists High school diaforms or squired sat Food Service Managers	•	-				1000		0				•		•	•	1	0		\$47,100	and the second second
High school diplome or squimlent Food Service Managers	•	•		0	•	•	•			-	-			and the second second	1.0		•		\$56,300	1 500
High school obforme ur squinslent Food Service Managers Industrial Machinery Mechanics	• • •	•	0	•	•	•	•	•			•		•	•	-	-	-	-		
High school dividence or squinstent Food Service Managers Industrial Machinery Mechanics Insurance Sales Agents Plumbers, Pipefitters, & Steamfitters	• • •	•	•	•••	•	•	•	• 0		0	•	•	•	•	•	0	•	•	\$45,600	1,570
High school diplome or equinalent Food Service Managers Industrial Machinery Mechanics Insurance Sales Agents Plumbers, Pipefitters, & Steamfitters Production, Planning, & Expediting Clerks	• •	•	•	• • •	•	•	•	• •		0	•	• 0	•	•	•	•	•	•	\$46,100	1,570 1,110
High school diplome or equinalent Food Service Managers Industrial Machinery Mechanics Insurance Sales Agents Plumbers, Pipefitters, & Steamfitters Production, Planning, & Expediting Clerks Sales Reps, Services, All Other	• • •	•	•	• • •	• • • • •	•	• •	0		-	-	-	•	•	•	-	•	• •	\$46,100 \$58,400	1,570 1,110 5,260
High solved diplome or equivalent Food Service Managers Industrial Machinery Mechanics Insurance Sales Agents Plumbers, Pipefitters, & Steamfitters Production, Planning, & Expediting Clerks	• •	•	•	• • •	•		•	• •		0	•	-	•	•	•	•	•	•	\$46,100	1,570 1,110 5,260 5,750

# GEORGIA'S STEM Careers to 2028

# Science | Technology | Engineering | Mathematics

Knowledge								,	now	ledge	e									Educ	ation		Occupal Characte	
Understanding of principles and facts of subject matter <ul> <li>full knowledge required</li> <li>some knowledge required</li> </ul> Education Typical education needed to enter an occupation Signal education needed to enter an occupation Jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.		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	2019 Edition - Georgia Wage Estimates	2018-28 Annual Openings
Life and Physical Science, Engineering, Ma	them	ati		nd	Info	o m	atio	m Ti	ech	nela	οgγ	Geo	upa	tio	ns		_		_	_	_			
Aerospace Engineers			0			•			•	•	-	•	•		2	•					1		\$108,900	210
Biological Science Teachers, Postsec		•		•	0	•		•		٠	٠		1	•					1				\$92,400	90
Civil Engineers	•		٠	0	1	•	•		•	٠	0	•			•	•					1		\$77,400	860
Computer & Information Systems Managers	•			0		•		•	•	•		•			•						1		\$136,300	1,310
Computer Network Architects			0	0	0	•			٠	٠		•	5								1		\$109,000	410
Computer Network Support Specialists	•			0	•	•			•	•												1	\$67,600	630
Computer Occupations, All Other			0	0	•	•	•		•	•		•					0				1		\$86,000	1,930
Computer Systems Analysts	•			0	5	•			٠	•		٠	11								1	1	\$86,900	1,570
Computer User Support Specialists				0	•	•				٠		•										1	\$50,600	2,200
Database Administrators				Ò	•	•															1		\$87,800	380
Electrical & Electronics Engineering Techs			0	0	1	•			٠			•	•			٠						1	\$63,100	360
Electrical Engineers			0			•		•	•	•	i C	•	0			•					1		\$83,800	350
Electronics Engineers, Exc Computer			0	0	Ò	•			•	•		•	•			•					1		\$91,400	400
Engineers, All Other 🇱		•	0	0	0	•		•		•	Q		•			•					1		\$89,300	400
Industrial Engineers			0	0		•		•	•	•		•	•								1		\$82,200	680
Information Security Analysts				0	•	•		•	•	•	0										1		\$90,100	330
Life, Physical, & Social Science Technicians, All Other		•		0		•		•	•	•			0									1	\$50,300	290
Mechanical Engineers		0	0	•		•		•	•	•	10	•			28	•					1		\$81,000	400
Medical Scientists, Exc Epidemiologists	•	•				•	L.			•									1				\$72,300	180
Network & Computer Systems Administrators						•						•									1		\$82,900	770
Operations Research Analysts						•			•				0								1		\$66,200	330
Sales Engineers				0		•			•	•											1		\$94,400	270
Sales Reps, Wholesale & Mfg, Tech & Scientific Products				0		•							0								1		\$72,600	1,050
Software Developers, Applications			0	0		•			٠	•			2								1		\$100,400	2,980
Software Developers, Systems Software			0	0	Ō	•		1	•	•		•									1		\$100,300	1,040
Statisticians						•	111		T			•			Ξ				1	1			\$88,500	130
Web Developers			0	0	0	•						•										1	\$76,400	340
Health Occupations																							-	
Dental Hygienists 🅮		0		0				•									0					1	\$62,600	590
Diagnostic Medical Sonographers		0		•	5	٠		•						•		0	0					1	\$59,100	210
Dietitians & Nutritionists		•		•	-			•		•	10		-	•			0	•			1		\$52,000	200
Emergency Medical Techs & Paramedics		•			0			•		•	•			•			0	•				1	\$32,400	1,020
Health Specialties Teachers, Postsec		•			0	•		•		•	•	•		•			0	•	1				\$113,900	710
Health Technologists & Technicians, All Other		0	1.7								0				•		0					1	\$44,800	330



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

# Georgia Department of Labor, Workforce Statistics & Economic Research

Equal Opportunity Employer/Program • Auxiliary Aids and Services Available upon Request to Individuals with Disabilities

# GEORGIA'S STEM Careers to 2028

# Science | Technology | Engineering | Mathematics

Knowledge	Knowledge															Edu	cation	1	Occupational Characteristics					
Understanding of principles and facts of subject matter <ul> <li>full knowledge required</li> <li>some knowledge required</li> </ul> <li>Education Typical education needed to enter an occupation ipobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.</li>		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	2019 Edition - Georgia Wage Estimates	2018-28 Annual Openings
Health Occupations Continued	1		_	_			_	-	-	_	-		_	_	-	_	_		_	_	_	-		
Internists, General	•	•		•	1	•	1	•		•	•	•		•	•	1	•	•	1				\$106,100	-
Licensed Practical & Licensed Vocational Nurses	•	0		•				•		•	٠	•		•			•	٠				1	\$39,700	2,250
Medical & Health Services Managers				•		•	٠	٠		•	٠	•		•	•						1		\$105,900	1,080
Med Records & Health Information Techs				•		•			11	•										1		1	\$37,300	520
Nurse Practitioners	1.				0	•	-			•	•	•	1.4	•	E		•			1			\$101,800	660
Nursing Instructors & Teachers, Postsec		•		•	0	•		٠			0	•					٠	•	1				\$68,200	160
Occupational Therapists		0		Ó						•				•			•			1			\$78,300	290
Ophthalmic Medical Technicians						•		•		•				•								1	\$33,500	200
Opticians, Dispensing	٠			•					1.1			•	0									1	\$34,700	200
Pharmacists 🥨		٠	_	•						•	0	•		•		-	0	•	1		-		\$113,200	630
Pharmacy Technicians										•		•		•		-						1	\$28,900	1,360
Physical Therapists 🥨				•					1				1.1		1		0	٠	1				\$82,300	440
Physician Assistants				Ō		•				•				•		11	•	٠	1	1			\$98,400	410
Physicians & Surgeons, All Other 🇱				0		•	•	•		•						•	0	•	1				\$224,200	570
Radiologic Technologists 🇱		0				•					0	•	•			•	0	1				1	\$54,100	480
Registered Nurses		0		Ó					h						÷.	1	0	•	1		1		\$65,800	6,340
Respiratory Therapists 🅮				0		•				•							0					1	\$54,900	430
Speech-Language Pathologists				0													0	•		1			\$74,100	360
Surgical Technologists				0																		1	\$42,700	480
Veterinarians				o															1				\$87,000	190
Veterinary Technologists & Technicians		0		•	1.1							•										1	\$30,200	430
Architecture Occupations	-				_	_								1										
Architects, Exc Landscape & Naval			•	0			•		•		•		16			1				10	1		\$98,400	300
Architectural & Civil Drafters				0					•		0					1					1	1	\$54,600	320
Architectural & Engineering Managers			0	0			1														1		\$134,700	410
Landscape Architects		0			0								1.7		Ξ						1		\$65,100	70
Social Science Occupations	100				-			-	-			-											-	
Clinical, Counseling, & School Psychologists											•		12						1	1.1			\$85,100	320
Economics Teachers, Postsec									1				11			-			1				\$96,900	30
Political Science Teachers, Postsec				0	0	•	T				0								1				\$97,000	30
Psychology Teachers, Postsec					1								T	1					1				\$72,300	50
Social Science Research Assistants		T			-																1		\$50,400	350
Social Scientists & Related Workers, All Other		1		0				1			0										1		\$82,800	300
Urban & Regional Planners			0	0	0								1				0			1			\$57,500	80

Fair 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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For more information, contact Workforce Statistics & Economic Research (WS&ER) at (404) 232-3875 or at workforce\_info@gdol.ga.gov

# What is Career, Technical and Agricultural Education?





# CTAE INDUSTRY CERTIFICATION

# **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-theart 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.

# 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.



# 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):

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

# Business and Computer Science (Certified by SHRM):

Alliance Academy for Innovation Denmark High School Forsyth Central High School Lambert High School North Forsyth High School South Forsyth High School West Forsyth High School

# Culinary Arts (Certified by ACFEF):

Denmark High School 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

# Food and Nutrition (Certified by Georgia Nutrition

and Food Science Foundation, Inc. and Sodexo): Forsyth Central High School Lambert High School North Forsyth High School West Forsyth High School

# Healthcare Science (Certified by HomeTown Health):

Alliance Academy for Innovation Lambert High School North Forsyth High School

# Marketing (Certified by AMA):

Alliance Academy for Innovation Denmark High School Forsyth Central High School Lambert High School North Forsyth High School South Forsyth High School West Forsyth High School

# **FY23 INDUSTRY CERTIFICATION PROCESS:**

# Agriculture Denmark High School

Business and Computer Science Lambert High School\* North Forsyth High School\* South Forsyth High School\*

# **Engineering/Mechatronics**

Lambert High School\* South Forsyth High School\* West Forsyth High School\*

# Marketing

Forsyth Central High School\* South Forsyth High School\*

# FY24 INDUSTRY CERTIFICATION PROCESS:

Agriculture North Forsyth High School

# A/V Technology & Film North Forsyth High School\* West Forsyth High School\*

Business and Computer Science West Forsyth High School\*

# **Engineering/Mechatronics**

Alliance Academy for Innovation Denmark High School Forsyth Central High School\* North Forsyth High School\*

# Healthcare Science

Lambert High School\* North Forsyth High School\*

# Marketing

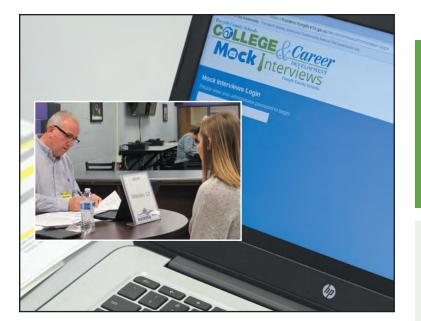
Lambert High School\* West Forsyth High School\*

\* 5-Year Re-Certification

# 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.

Appropriate and Alternative Energy TechnologiesEnergyEnergy and Power TechnologiesEnergyApplications of BiotechnologyHealth ScienceEssentials of BiotechnologyHealth ScienceEssentials of BiotechnologyHealth ScienceEssentials of HealthcareHealth ScienceSports MedicineHealth ScienceFood for LifeHuman ServicesFood ScienceAgriculture, Food and Natural ResourcesGeneral Horticulture and Plant ScienceAgriculture, Food and Natural ResourcesNatural Resources ManagementAgriculture, Food and Natural ResourcesAnimal Science Technology/BiotechnologyAgriculture, Food and Natural ResourcesPlant Science and BiotechnologyAgriculture, Food and Natural ResourcesAdvanced AC and DC CircuitsScience, Technology, Engineering, & MatherrAdvanced Placement Computer Science, Year OneInformation TechnologyInternational Baccalaureate Computer Science, Year TwoInformation TechnologyAdvanced Placement Computer Science PrinciplesInformation TechnologyVeb DevelopmentInformation Technology		
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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, & Mathem         Advanced Placement Computer Science       Science, Technology         International Baccalaureate Computer Science, Year One       Information Technology         International Baccalaureate Computer Science, Year Two       Information Technology         Advanced Placement Computer Science Principles       Information Technology         Programming, Games, Apps and Society       Information Technology         Web Development       Information Technology		
Food for LifeHuman ServicesFood ScienceHuman ServicesForest ScienceAgriculture, Food and Natural ResourcesGeneral Horticulture and Plant ScienceAgriculture, Food and Natural ResourcesNatural Resources ManagementAgriculture, Food and Natural ResourcesAnimal Science Technology/BiotechnologyAgriculture, Food and Natural ResourcesPlant Science and BiotechnologyAgriculture, Food and Natural ResourcesAdvanced AC and DC CircuitsScience, Technology, Engineering, & MathemAdvanced Placement Computer ScienceScience, Technology, Engineering, & MathemInternational Baccalaureate Computer Science, Year OneInformation TechnologyAdvanced Placement Computer Science PrinciplesInformation TechnologyAdvanced Placement Computer Science PrinciplesInformation TechnologyMethem Computer Science PrinciplesInformation TechnologyProgramming, Games, Apps and SocietyInformation TechnologyWeb DevelopmentInformation Technology		
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Computer Science PrinciplesInformation TechnologyProgramming, Games, Apps and SocietyInformation TechnologyWeb DevelopmentInformation Technology		
Programming, Games, Apps and Society     Information Technology       Web Development     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	ions and Se	ecurity
Aerospace Science: Flight Science Government and Public Administration	ministration	n



# Mock Interviews

All CTAE students enrolled in a third-year career pathway course or Internship/Mentorship Forsyth 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. Several thousand 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 February 6-10, 2023

DENMARK HIGH SCHOOL March 6-10, 2023

EAST FORSYTH HIGH SCHOOL March 13-17, 2023

FORSYTH CENTRAL HIGH SCHOOL March 6-10, 2023

LAMBERT HIGH SCHOOL February 13-17, 2023

NORTH FORSYTH HIGH SCHOOL February 27- March 3, 2023

SOUTH FORSYTH HIGH SCHOOL March 13-17, 2023

WEST FORSYTH HIGH SCHOOL February 27- March 3, 2023



All students in Forsyth County Schools are involved in the GeorgiaBEST<sup>@</sup> School program. GeorgiaBEST<sup>@</sup> School is designed for Pre-K through Post-Secondary teachers to facilitate discussion in their classrooms.

**GOAL**: at the earliest age – exposure to concepts; for all students – introduce components, model, teach, reinforce, acknowledge, and reward appropriate behavior and skills in order to prepare students for the workplace, for higher education, and for life. GeorgiaBEST<sup>®</sup> School utilizes a grading rubric/participant evaluation that more closely resembles how employees are evaluated in the workplace. 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.







# GEORGIABEST AND CAREER RESEARCH

# **CAREER PLANNING RESOURCES**

# 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.caeeronestop.orrg

Sponsored by the U.S. Department of Labor, CareerOneStop is your source for career exploration, training, and jobs.

### www.ctaern.org

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

### https://dol.georgia.gov/get-occupationaltrends

Occupational information, including projected employment and wages, is vital in career exploration, education and training program development, and economic development. This site provides Occupational Outlook, Georgia job information, hot careers, and STEM careers!

### https://explorer.gdol.ga.gov/vosnet/ Default.aspx

Georgia LaborMarket Explorer is an online resource for your employment needs!

### http://gacareerpipeline.gadoe.org/

Georgia's Career Pipeline is provided to assist Georgia businesses locate local young talent with the skills needed for the field or industry. Businesses can use this information to make decisions concerning growth, development, and workforce needs.

### www.gafutures.org

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

### www.onetonline.org/

O\*NET OnLine is a tool for career exploration and job analysis and has detailed descriptions of the world of work use by job seekers, workforce development and HR professionals, students, researchers, and more!

# Life Skills Definitions/Descriptions 6th through 8th Grade



Compiled from: GeorgiaBEST; GaDOE; WorkEthic.org; Dictionary.com; Nevada DOE/CTAE; STEMNET; USDOL/Skills to Pay the Bills; O\*NET; Job Corps; SCANS; Arizona's Workplace Employability Skills Project; Connie Smith/Rose Procter/Cari Barrett

COMPETENCY	DEFINITION/DESCRIPTION
	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 • be enthusiastic and self-confident • take direction • 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 • be able to work independently • complete assigned tasks efficiently, effectively and timely • work towards goals.
Flexibility	The ability to: • adapt to different situations and environments, especially when outside of a normal routine • display a teachable heart and willingness to change or compromise • be receptive to new information • learn from mistakes for the benefit of self and others involved.
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 school and personal life to meet goals and deadlines • overcome procrastination.
Discipline	The ability to: • follow the chain of command • demonstrate good character • be even tempered • behave appropriately • accept unavoidable interruptions and pressure • pay attention to details • display a high level of concentration even when assigned an unpleasant task • demonstrate grit and resilience.
Integrity	The ability to: • demonstrate moral, ethical, loyal, trustworthy, and honest behavior • be accountable and dependable • play fair • maintain confidentiality • do the right thing even when no one is looking • produce quality work • work to fulfill the mission of the organization • define personal values versus what is valued.
	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 • negotiate diplomatic solutions to interpersonal and school issues • 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 • read and interpret documents and writing clearly and correctly • 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 • participate in group decision-making.
	EMPLOYER EXPECTATIONS
Attendance and Punctuality	The ability to: • come to school every day on time • notify teachers in advance of planned absences • make up work or assignments punctually • come to school prepared to work.
Service to Others	The ability to: • see other people's point of view • handle complaints correctly • interact appropriately with others • listen attentively and provide undivided attention • identify and anticipate needs • make others feel important and appreciated • convey sincerity • know how to apologize • give more than expected • follow through on promises • solicit regular feedback • encourage and welcome suggestions • show appreciation • demonstrate the power of "yes" • provide helpful, courteous and friendly service to teachers, administrators, parents, and others without being asked.
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 • 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 • "think on one's feet", assess problems, and find well-thought out solutions within a reasonable time frame • think critically and creatively, share thoughts and opinions • understand framework for sound ethical decisions.
Technology Usage and Social Media Ethics	The ability to: • follow policy regarding use of personal technology while at school • demonstrate proper use of technology • understand how one's online actions and behavior can have far-reaching and long-lasting effects.
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 student, family, and school • display proper etiquette in classroom, lunch room, or at school-related functions.
Following the Rules	The ability to: • follow rules, regulations, procedures, and directions especially those related to safety • display good habits • keep classroom neat and orderly • maintain school equipment to ensure longevity and efficiency • take proactive measures to address unsafe practices or behaviors.

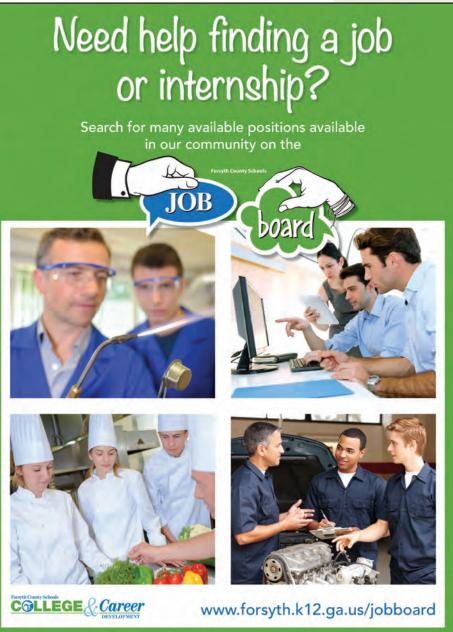
# Life Skills Definitions/Descriptions 9th through 12th Grade



Compiled from: GeorgiaBEST; GaDOE; WorkEthic.org; Dictionary.com; Nevada DOE/CTAE; STEMNET; USDOL/Skills to Pay the Bills; O\*NET; Job Corps; SCANS; Arizona's Workplace Employability Skills Project; Connie Smith/Rose Procter

COMPETENCY	DEFINITION/DESCRIPTION
	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 • 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 • work towards goals.
Flexibility	The ability to: • adapt • display a teachable heart and willingness to change or compromise • receptive to new information • 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 • overcome procrastination.
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 • demonstrate grit and resilience.
Integrity	The ability to: • demonstrate moral, ethical, loyal, trustworthy, and honest behavior • accountable and dependable • play fair • maintain confidentiality • do the right thing even when no one is looking • produce quality <i>work</i> • fulfill the mission of the organization • define personal values versus what is valued.
	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 • negotiate diplomatic solutions to interpersonal and workplace issues • acknowledge the economic, political, and social relationships that impact multiple levels of an organization • 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 • read and interpret workplace documents and writing clearly and correctly • 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 • 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 • 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: • see the customer's point of view • handle customer complaints correctly • interact appropriately with customers • 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 • 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 • "think on one's feet", assess problems, and find well-thought out solutions within a reasonable time frame • think critically and creatively, share thoughts and opinions • 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 • 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 • 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.

# **FINDING A JOB** THROUGH **JOB BOARD**



A student job board seeks to list job opportunities specifically

available to local employers, business, industry, government,

students applying for jobs.

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

available to high school students in the surrounding area which

are listed by employment category. FCS job posting services are

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.



The Dual Enrollment (DE) program provides district students the opportunity to be "dual credit enrolled". This means a DE 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, DE students take postsecondary coursework for credit towards both high school graduation and postsecondary requirements. Beginning with Fall term 2015 (FY 2016) the program is offered during all terms of the school year: fall, spring and summer semesters.

# TO BE ELIGLIBLE FOR THE DE PROGRAM, A STUDENT MUST:

# Student Eligibility

- A student must be enrolled in and physically attending a participating eligible public or private high school in Georgia or an eligible participating home study program in Georgia.
- A student must be approved, by the participating high school or home study program at which he or she is enrolled, to participate in dual enrollment.
- Prior to participating in Dual Enrollment, as part of the application process, the student and student's parent/guardian must complete the Student Participation Agreement (SPA).
- A student must have completed the admission process and been accepted and approved by the participating postsecondary institution.
- All postsecondary coursework must be completed prior to high school graduation or home study completion in order to receive Dual Enrollment credit and funding.

# **GRADE LEVEL ELIGIBILITY**

# 11th & 12th Graders

 Eligible students may take any approved Dual Enrollment courses listed on the Course Directory, at an eligible participating postsecondary institution (USG, TCSG or private).

# DUAL ENROLLMENT



# INFORMATION NIGHTS FOR 2022-23 ENROLLMENT



UNIVERSITY OF NORTH GEORGIA November 29, 2022 at 6PM December 6, 2022 at 6PM Cumming Campus 300 Aquatic Circle, Cumming, GA 30040 470-239-3100



LANIER TECHNICAL COLLEGE November 30, 2022 at 6PM Forsyth Campus 3410 Ronald Reagan Blvd Cumming, GA 30041 678-341-6633



# DUAL ENROLLMENT

# **10th Graders**

- Eligible students may enroll in approved Career, Technical and Agricultural Education (CTAE) courses listed on the Course Directory at a participating TCSG institution only.
- Eligible students who have a minimum SAT score of 1200 or minimum ACT composite score of 26 in a single national test administration, may enroll in any approved courses listed on the Course Directory at a TCSG, USG or private eligible participating postsecondary institution.

Note: GSFC must have the required test score(s) on file prior to the student completing the Dual Enrollment funding Application and the high school or home study approving courses.

 Students that were 9th graders during the 2019-2020 school year and participated in Dual Enrollment during the 2019-2020 (FY 2020) year may enroll as 10th graders in any approved Dual Enrollment courses listed on the Course Directory at an eligible participating postsecondary institution (USG, TCSG or private) for the 2020-2021 year.

### 9th Graders

• Students in the 9th grade are not eligible to participate in the Dual Enrollment funding Program.

# Public High School Students pursuing High School Graduation with Option B

- Public high school students, designated by their high school, pursing High School Graduation Option B (SB2) as of Spring term 2020, may enroll in any approved Dual Enrollment courses at a TCSG, USG or private eligible participating postsecondary institution.
- Public high school students, designated by their high school, as pursuing High School Graduation Option B (SB2) starting Summer term 2020 or after are subject to the Funding Cap.

### **Course Retake & Withdrawals**

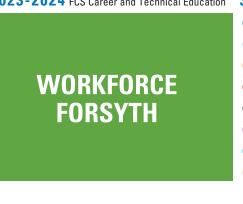
- A student may not receive funding to repeat or retake a course.
- A student is no longer eligible to continue to receive program funding after withdrawing from Dual Enrollment course(s) two (2) times.

# **Funding Cap Eligibility**

- The Dual Enrollment Funding Cap is 30 semester or 45 quarter hours.
  - The Funding Cap is a hard cap based on hours paid by the Dual Enrollment funding program for terms of enrollment (as invoiced by the postsecondary institutions).
  - The Funding Cap does not include dual credit coursework attempted and paid by other sources.
  - The Dual Enrollment Funding Cap is 30 semester or 45 quarter hours for students who received Dual Enrollment funding for 18 semester or 27 quarter or less hours, through Spring term 2020.
  - The Dual Enrollment Funding Cap for students who received Dual Enrollment funding for 19 semester or 29 quarter or more hours, through Spring term 2020, is extended for an additional 12 semester hours or 18 quarter hours of funding.
  - Public high school students, designated by their high school, as pursuing High School Graduation Option B (SB2) starting Summer term 2020 or after are subject to the Funding Cap.
  - Public high school students designated by their high school, as pursuing High School Graduation Option B (SB2) as of Spring term 2020, may continue to complete their pathway while participating in the Dual Enrollment funding program and are not subject to the Funding Cap.
  - Dual Enrollment funding per term is a maximum of 15 semester or 12 quarter hours and a maximum of three semesters or four quarters per award year based on approved enrollment and available Funding Cap hours.

Upon reaching the 30 semester or 45 quarter hours program Funding Cap, a student may qualify for HOPE Grant Bridge and HOPE Career Grant funding or may choose to self-pay. For more information, visit: https://www.gafutures.org/hopestate-aid-programs/scholarships-grants/dual-enrollment/







# WORKFORCE | CAREER | FORSYTH

Propelling the Career Pipeline for Forsyth County

In 2014, Forsyth County Schools (FCS), in partnership with the 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.

Workforce Forsyth is also the outcome of Forsyth County Schools partnership with business and industry throughout the community to promote job growth by determining business needs and developing solutions that included the following components:

• Academics: teaching curricula for career pathway courses built from corporate training materials and other in-kind donations, strengthened post-secondary relationships among Lanier Technical College, the University of North Georgia, and other post-secondary institutions

• Work-Based Learning: overseas cultural experiences, externships, clinical, and other work-based learning and job shadowing opportunities

• Employment Pipelines: workforce needs assessments, Chamber of Commerce/local economic development support, and online systems to match students to job opportunities.

Building on the initial efforts, FCS completed a community workforce development plan with guidance from UGA's Carl Vinson Institute of Government in June 2018. These efforts built on the initial Workforce Forsyth plan from 2014 and led to the creation of a roadmap to guide CTAE programing within the school district over the last few years through 2022. This plan provided priorities to guide investments in and strategies for workforce development. During the 2021-22 school year, the district worked with UGA's Carl Vinson Institute on the latest Workforce Forsyth Strategy for our future workforce to guide the district over the next four years.

# Focus for the 2022-23 School Year:

- Vertical Alignment of Pathways in Clusters
- Continuation of CTAE Connect
- CTAE Excellence Guide Benchmarking
- Creating Experiential Learning Experiences
- Business Partnership Focus/Evaluation/Training with Stakeholder Summit
- Internal Monitoring/Review Process for High Schools: North Forsyth HS and South Forsyth HS
- Self-Reflection:
  - Does your classroom reflect local business/industry, and how are you involving them into curriculum, projects, and daily discussions?
  - Are you infusing local business/industry needs or situations into project-based application as often as possible in the classroom and with your CTSO?
  - How many students from your program areas are involved in Internship and Mentorship?

	Workforce Forsyth Priorities Short-Term Strategies	from 2022-2026 Long-Term Strategies
Priority 1 In Demand Job	<ul> <li>Keep program equipment and labs up to date; assess existing equipment</li> <li>Evaluate program offerings to ensure alignment to local economy</li> </ul>	Consider design and development of a skilled-trades program accessible to all Forsyth County students offered at a centralized location
Priority 2 Continuous Quality Improvement	<ul> <li>Encourage teacher use of CTAE Excellence Guides as framework for their programs</li> <li>Seek additional ways for more planning time with middle/high school by pathway offerings and vertical teams</li> </ul>	Evaluate current participation for teacher externships and encourage participation; Explore ways to reduce administrative burden placed on teachers through additional administrative support, process improvements, and policy changes.
<b>Priority 3</b> Grow and Enhance CTAE Partnerships	• Fully implement a customer relationship management system (CRM) with Salesforce	Assess existing partnership relationships and look for areas that are lacking deep partnerships; Work with Chamber and other community stakeholders to recruit and engage more partners; fully leverage the CRM for managing lifecycle of CTAE partners
Priority 4 Outreach and Marketing	• Develop a comprehensive outreach and marketing strategy with areas such as website improvements, showcasing success stories, increase social media presence, and showcase students and parents the many career opportunities that exist in Forsyth County.	Target outreach and marketing efforts in elementary and middle school; showcase benefits of pathways to parents; host annual Stakeholder Summit and ongoing conversations around workforce development.



# 2023-2024 Forsyth County Schools HIGH SCHOOL CAREER PATHWAYS



# AGRICULTURE CLUSTER

- ✓ Companion Animal Systems Pathway (D) Basic Agriculture Science Animal Science and Biotechnology Small Animal Care\* 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, N) Basic Agriculture Science Animal Science and Biotechnology Veterinary Science\* Internship Forsyth or Mentorship Forsyth

# ARCHITECTURE AND CONSTRUCTION CLUSTER

- Architectural Drawing and Design Pathway (E) Introduction to Drafting and Design Architectural Drawing and Design I Architectural Drawing and Design II\* Internship Forsyth or Mentorship Forsyth
- ✓ Carpentry/Construction Pathway (E) Industry Fundamentals and Occupational Safety Introduction to Construction Carpentry I \* Internship Forsyth or Mentorship Forsyth
- Heavy Equipment Operations Pathway (E) Industry Fundamentals and Occupational Safety Introduction to Heavy Equipment Heavy Equipment Operations I Internship Forsyth or Mentorship Forsyth

# ARTS, A/V TECHNOLOGY, AND COMMUNICATIONS CLUSTER

- Audio-Video Technology and Film Pathway (C, E, L, N, S, W)
   Audio & Video Technology & Film
   Audio & Video Technology & Film II
   Audio & Video Technology & Film III\*
   Internship Forsyth or Mentorship Forsyth
- Film Production Pathway (C)
   Audio & Video Technology & Film
   Introduction to Film Production
   Film Production Applications\*
   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, E, S) Introduction to Business and Technology Legal Environment of Business Entrepreneurship\* Internship Forsyth or Mentorship Forsyth
- ✓ Human Resources Management Pathway (S) Introduction to Business and Technology Legal Environment of Business Human Resources Principles\* Internship Forsyth or Mentorship Forsyth
- International Business Pathway (A) Introduction to International Business Global Awareness and Cultural Competency International Business Concepts\* Internship Forsyth or Mentorship Forsyth



- A Alliance Academy for Innovation
- C Forsyth Central HS
- D Denmark HS
- E East Forsyth HS
- **F** Forsyth Virtual
- L Lambert 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 (Work-Based Learning) and Mentorship Forsyth (Job Shadowing) opportunities are available in each career pathway. See a Career Development Coordinator or your school counselor for additional information!



# 2023-2024 **Forsyth County Schools** HIGH SCHOOL CAREER PATHWAYS



# EDUCATION AND TRAINING CLUSTER

- Early Childhood Education Pathway (E) Early Childhood Education I Early Childhood Education II Early Childhood Education Practicum\* Internship Forsyth or Mentorship Forsyth
- **Teaching as a Profession Pathway** (A, C, D, E, 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 (S) Introduction to Business and Technology Principles of Accounting I Principles of Accounting II\* Internship Forsyth or Mentorship Forsyth
- 1 **Business Accounting Pathway (F, L)** Introduction to Business and Technology **Financial Literacy** Principles of Accounting I\* Internship Forsyth or Mentorship Forsyth
- 1 Financial Services Pathway (D, F, L) Introduction to Business and Technology **Financial Literacy** Banking, Investing and Insurance\* Internship Forsyth or Mentorship Forsyth

Financial Technology (FinTech) Pathway (A) Introduction to Financial Technology **Financial Technologies and Services** Coding for FinTech\* 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
- Public Management and Administration (A) Introduction to Government and Public Administration Government Public Administration: State and Federal Issues Government Public Administration: Local and State

Issues\*

Internship Forsyth or Mentorship Forsyth

# HEALTH SCIENCE CLUSTER

- Allied Healthcare and Medicine Pathway (W) Introduction to Healthcare Science **Essentials of Healthcare** Allied Health and Medicine\* Internship Forsyth or Mentorship Forsyth
- **Biotechnology Research & Development Pathway** (C, L) Introduction to Healthcare Science Essentials of Biotechnology Applications of Biotechnology\* Internship Forsyth or Mentorship Forsyth
- Diagnostic Clinical Lab Pathway (A) Introduction to Healthcare Science Essentials of Healthcare Clinical Lab Internship Forsyth or Mentorship Forsyth



- Alliance Academy for Innovation
- Forsyth Central HS С

S

- D Denmark HS
- Ε East Forsyth HS
- F. Forsyth Virtual Lambert HS

North Forsyth HS South Forsyth HS West Forsyth HS Forsyth County Schools



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



# 2023-2024 **Forsyth County Schools** HIGH SCHOOL CAREER PATHWAYS



- **Emergency Medical Responder Pathway (A)** Introduction to Healthcare Science Essentials of Healthcare **Emergency Medical Responder\*** Internship Forsyth or Mentorship Forsyth
- **Emergency Medical Technician Pathway (A)** Introduction to Healthcare Science **Essentials of Healthcare Emergency Medical Technician\*** Internship Forsyth or Mentorship Forsyth
- Phlebotomy Pathway (L) Introduction to Healthcare Science **Essentials of Healthcare Diagnostics Phlebotomy\*** Internship Forsyth or Mentorship Forsyth
- Public Health Pathway (N) Introduction to Healthcare Science **Essentials of Healthcare** Applications of Public Health\* Internship Forsyth or Mentorship Forsyth
- Sports Medicine Pathway (L, N) Introduction to Healthcare Science **Essentials of Healthcare** Sports Medicine\* Internship Forsyth or Mentorship Forsyth

# HOSPITALITY AND TOURISM CLUSTER

- Culinary Arts Pathway (D, E, L, S, W) Introduction to Culinary Arts Culinary Arts I Culinary Arts II\* Internship Forsyth or Mentorship Forsyth
- 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, F, L, N, S, W) **Marketing Principles** Introduction to Sports & Entertainment Marketing Advanced Sports & Entertainment Marketing\* Internship Forsyth or Mentorship Forsyth

# HUMAN SERVICES CLUSTER

- Cosmetology Pathway (C, W) Introduction to Personal Care Services **Cosmetology Services II** Cosmetology Services III\* Internship Forsyth or Mentorship Forsyth
- Interiors, Fashion, and Textiles Pathway (E) Foundations of Interior Design **Fundamentals of Fashion Textile Science\*** Internship Forsyth or Mentorship Forsyth
- Nutrition and Food Science Pathway (C, L, N, W) Food, Nutrition & Wellness Food for Life Food Science\* Internship Forsyth or Mentorship Forsyth

# INFORMATION TECHNOLOGY CLUSTER

- Artificial Intelligence Pathway (D) Foundations of Artificial Intelligence Artificial Intelligence Concepts Artificial Intelligence Applications Internship Forsyth or Mentorship Forsyth
- **Cloud Computing Pathway (C, L)** Introduction to Software Technology Computer Science Principles or AP Computer Science Principles
  - **Cloud Computing\*** Internship Forsyth or Mentorship Forsyth



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- Lambert HS

North Forsyth HS South Forsyth HS West Forsyth HS

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# 2023-2024 **Forsyth County Schools** HIGH SCHOOL CAREER PATHWAYS



Computer Science Pathway (A, C, D, E, F, L, N, S, W) Introduction to Software Technology **Computer Science Principles or AP Computer Science** Principles **AP Computer Science\*** 

Internship Forsyth or Mentorship Forsyth

- Cybersecurity Pathway (A) Introduction to Hardware Technology Introduction to Cybersecurity Advanced Cybersecurity\* Internship Forsyth or Mentorship Forsyth
- Game Design Pathway (A, F) Introduction to Software Technology **Computer Science Principles or AP Computer Science** Principles Game Design: Animation and Simulation\* Internship Forsyth or Mentorship Forsyth
- Programming Pathway (S) Introduction to Software Technology **Computer Science Principles** Programming, Games, Apps, and Society\* Internship Forsyth or Mentorship Forsyth
- Web Development Pathway (F, N, W) Introduction to Digital Technology Computer Science Principles or AP 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
- 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

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, 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, E, L, N, S) Marketing Principles **Promotion and Digital Sales** Integrated Marketing Communications\* Internship Forsyth or Mentorship Forsyth
- **Marketing & Management Pathway** (C, D, E, F, L, N, S, W) **Marketing Principles** Marketing and Entrepreneurship Marketing Management\* Internship Forsyth or Mentorship Forsyth



- Alliance Academy for Innovation
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- D Denmark HS
- Ε East Forsyth HS
- F. Forsyth Virtual Lambert HS



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To fulfill state pathway requirements, students must complete the sequences of courses shown and take an end-of-pathway assessment when available. Internship Forsyth (Work-Based Learning) and Mentorship Forsyth (Job Shadowing) opportunities are available in each career pathway. See a Career Development Coordinator or your school counselor for additional information!



# 2023-2024 **Forsyth County Schools** HIGH SCHOOL CAREER PATHWAYS



# STEM - SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS CLUSTER

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

# TRANSPORTATION, DISTRIBUTION, & LOGISTICS CLUSTER

- Aerospace Flight Operations (A) Fundamentals of Aerospace Flight Operations I Flight Operations II\* Internship Forsyth or Mentorship Forsyth
- Drone/Unmanned Aircraft Systems (A) 1 Fundamentals of Aerospace **Flight Operations I** Unmanned Aircraft Systems\* Internship Forsyth or Mentorship Forsyth
- Automotive Service 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

# WORKFORCE READY CLUSTER

Workforce Ready Pathway (C) Introduction to Career Competencies **Career Competencies** Advanced Career Competencies\* Internship Forsyth or Mentorship Forsyth



CAREER-RELATED DUAL ENROLLMENT OPTIONS

at Lanier Technical College:

Precision Machining and Manufacturing Welding and Joining Technology Wireless Engineering Technology

# MANY OTHER PROGRAM AREAS AVAILABLE!





- Alliance Academy for Innovation
- Forsyth Central HS С
- D Denmark HS
- Ε East Forsyth HS
- F. Forsyth Virtual
- Lambert HS L

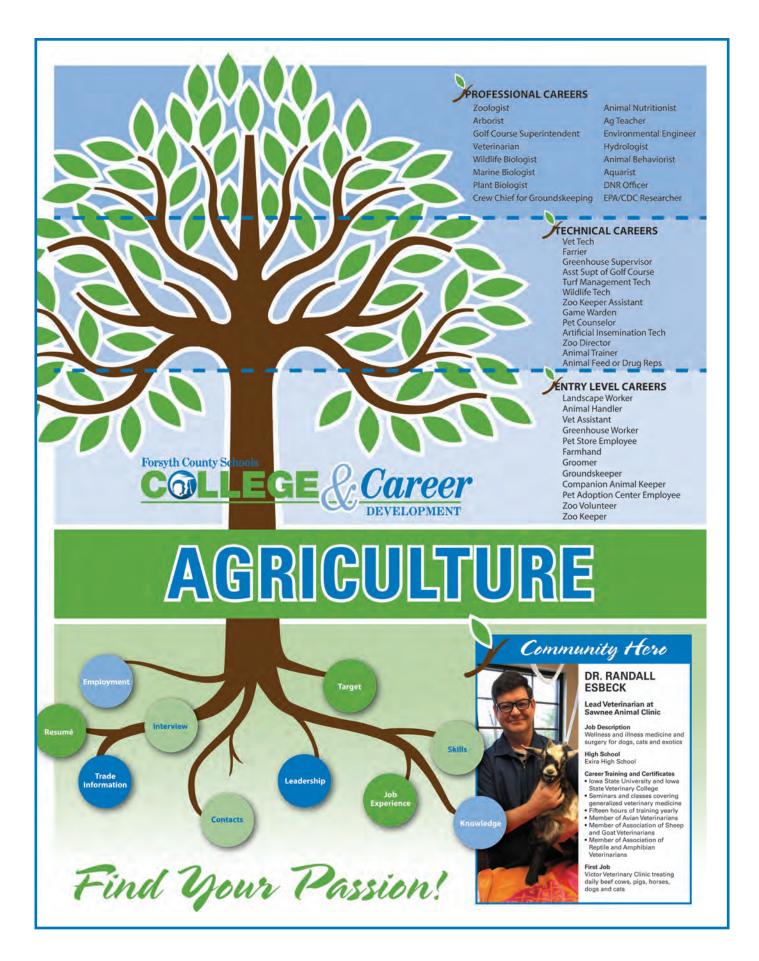
South Forsyth HS West Forsyth HS Forsyth County Schools

North Forsyth HS

S



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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



**AGRICULTURE, FOOD AND NATURAL RESOURCES** 

# COMPANION ANIMAL SYSTEMS PATHWAY

# **TOP CAREER 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

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



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



**AGRICULTURE, FOOD AND NATURAL RESOURCES** 

# LANDSCAPE MANAGEMENT SYSTEMS PATHWAY

#### **TOP CAREER 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



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



**AGRICULTURE, FOOD AND NATURAL RESOURCES** 

# VETERINARY SCIENCE PATHWAY

# **TOP CAREER CHOICES**

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

#### Veterinarian

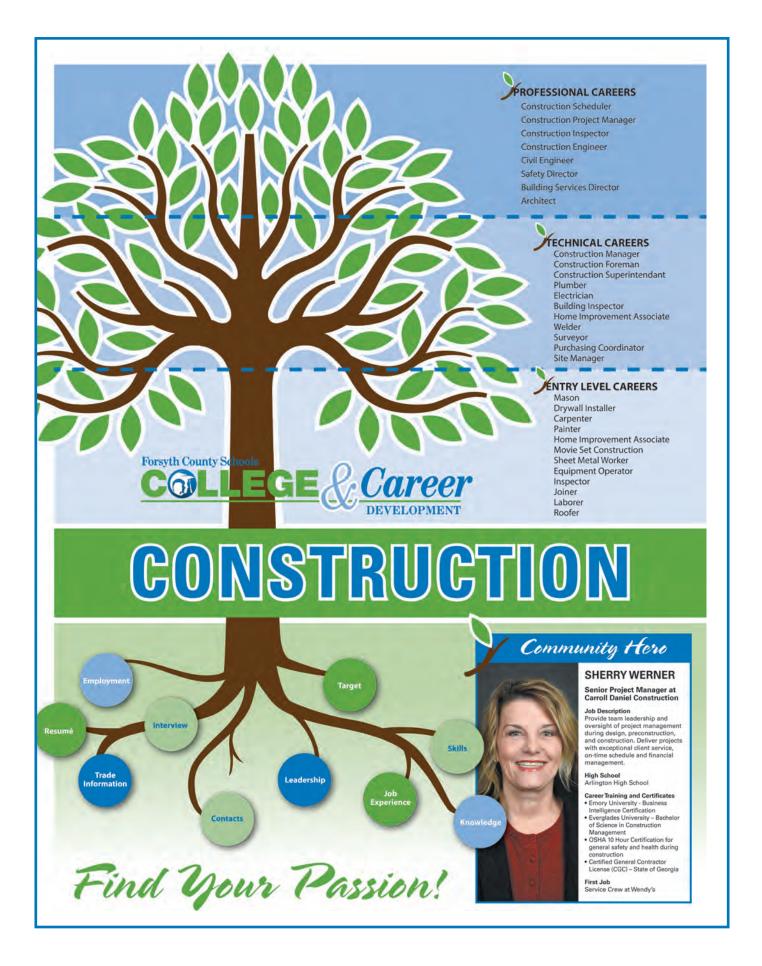
Doctoral or Professional Degree \$82,040 per year starting salary

#### **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**





People with careers in engineering, drawing, and design are people who solve problems and focus on making things work more efficiently and effectively. Engineers apply the theories and principles of science and mathematics to research and develop economical solutions to technical problems. Their work is the link between perceived social needs and commercial applications.

# PATHWAY COURSES

- Introduction to Drafting and Design
- Architectural Drawing and Design I
- Architectural Drawing and Design II

#### **RECOMMENDED COURSES**

- Advanced Algebra/Trigonometry
- Calculus
- Computer Applications
- Entrepreneurship
- Introduction to Animation and 3D Design
- Physics
- Work-Based Learning
- World Language

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- CAD Operator
- Land Development
- Project Management

Specialty Construction

- COLLEGES/UNIVERSITIES
  - Architecture
  - Civil Engineering Technology
  - Construction Engineering
  - Construction Management
  - Surveying and Mapping

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**ARCHITECTURE AND CONSTRUCTION** 

# ARCHITECTURAL DRAWING AND DESIGN PATHWAY

# **TOP CAREER CHOICES**

#### Architect

Moderate-Term On-the-Job Training needed \$53,000 annual salary

110 annual average openings in Georgia

# Architectural and Civil Drafter

Post-Secondary Vocational Training needed \$42,078 annual salary 80 annual average openings in Georgia

#### **Mechanical Drafter**

Post-Secondary Vocational Training needed \$42,141 annual salary 40 annual average openings in Georgia

#### **Surveying and Mapping Technician**

Moderate-Term On-the-Job Training needed \$43,540 annual salary 110 annual average openings in Georgia

### Surveyor

Bachelor Degree needed \$59,000 annual salary 110 annual average openings in Georgia

# ADDITIONAL CAREER CHOICES

- Architectural Detailer
- Architectural Engineer
- **Building Inspector**
- Civil Engineer
- Designer
- Drafter
- Electrical Engineer
- Environmental Engineer
- Interior Designer
- Landscape Designer
- Structural Detailer
- Structural Engineer
- Technician
- Urban Planner



Construction is one of the nation's largest industries with over 7 million wage and salary jobs and 1.9 million self-employed workers. Construction includes the building of new structures as well as additions and modifications to existing ones. The construction industry also includes maintenance, repair and improvements on these structures.

# PATHWAY COURSES

- Industry Fundamentals and Occupational Safety
- Introduction to Construction
- Carpentry I

#### **RECOMMENDED COURSES**

- Calculus
- Current Issues
- Literary Types/Composition
- Macroeconomics
- Microeconomics
- Oral/Written Communication
- Sociology
- Statistics

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES TECHNICAL COLLEGES

- On-the-Job Training
- Military
- Special Purpose Schools
- State Registered Apprenticeships

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**ARCHITECTURE AND CONSTRUCTION** 

# CARPENTRY/ CONSTRUCTION PATHWAY

# **TOP CAREER CHOICES**

### Construction Carpenters

Postsecondary Certificate \$39,700 annual salary 499 annual average openings in Georgia

# Construction Manager

Bachelor Degree \$99,756 annual salary 136 annual average openings in Georgia

#### **Construction and Building Inspectors** Bachelor's Degree \$53,108 annual salary 87 annual average openings in Georgia

# **ADDITIONAL CAREER CHOICES**

- Carpenters
- Construction Craft Laborers
- Construction Engineers
- **Construction Foremen**
- Construction Inspectors
- Construction Managers
- Drywall Installers
- Electrician
- Floor Layers
- Home Improvement Associate
- Mason
- Painters
- Paperhangers
- Project Inspectors
- Project Managers
- Plumber and Pipefitter
- Roofers
  - Sheet Metal Worker



Students will gain foundational knowledge in construction including carpentry, plumbing, electrical, welding and HVAC. The pathway will focus and build on the concepts related to earthmoving as well as reading and using blueprints and specifications related to grading and grade calculations. The pathway provides specific knowledge and skills in operating and maintaining utility tractors and heavy equipment.

# PATHWAY COURSES

- Industry Fundamentals and Occupational Safety
- Introduction to Heavy Equipment
- Heavy Equipment Operations I

# **RECOMMENDED COURSES**

- Calculus
- Current Issues
- Literary Types/Composition
- Macroeconomics
- Microeconomics
- Oral/Written Communication
- Sociology
- Statistics

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- On-the-Job Training
- Military
- Special Purpose Schools
- State Registered Apprenticeships

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**ARCHITECTURE AND CONSTRUCTION** 

# HEAVY EQUIPMENT OPERATIONS PATHWAY

# **TOP CAREER CHOICES**

Heavy Equipment Operator \$90,000 - \$100,000 annual salary

Heavy Equipment Mechanic \$45,000 - \$65,000 annual salary

# **ADDITIONAL CAREER CHOICES**

Heavy Equipment Service Technician

Forklift Operator

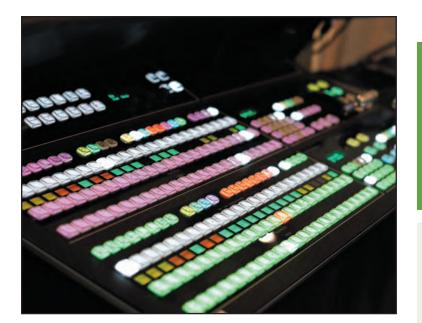
Backhoe and Dozer Operator

Articulated Dump Truck Operator

Pipe Layer







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





# ARTS, AUDIO-VIDEO TECHNOLOGY AND COMMUNICATIONS

# AUDIO/VIDEO TECHNOLOGY AND FILM PATHWAY

# **TOP CAREER 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**

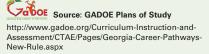
Associate Degree needed \$35,443 annual salary 50 annual average openings in Georgia

#### **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 Film Production pathway prepares students with introductory technical skill and employment needs for an entry level film production worker or to enter postsecondary education program in the audio and video technology career field. The pathway will also prepare students to participate in multiple class-created film production team simulations and film projects to develop a professional film portfolio. This portfolio may include documents, projects, documented work activities in various simulated film production departments and film clips and related projects showcasing student activities. Topics covered may include terminology, safety on a set, production teams, equipment, script writing, production, editing, post-production, and professional ethics.

# PATHWAY COURSES

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

### **RECOMMENDED COURSES**

- Computer Science Principles
- Graphic Design
- Business Communications
- Intro to Animation and 3D Design
- Technical Writing
- Marketing Principles

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- TECHNICAL COLLEGES
  - Broadcast Design
  - Mass Communications
  - Public Relations
  - Digital Photography
  - Animation
  - Video Production
- COLLEGES/UNIVERSITIES
  - Film/Cinema/Media Studies
  - Film Production and Show Production
  - Digital Filmmaking and Design
  - Promotion and Video Content
  - Documentary Production
  - Arts & Media Management
  - Visual & Performing Arts

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





ARTS, AUDIO-VIDEO TECHNOLOGY AND COMMUNICATIONS

# FILM PRODUCTION PATHWAY

# **TOP CAREERS CHOICES**

Audio and Video Equipment Technician \$45,320 annual salary

Camera Operators, Television, Video and Motion Picture Graphic Designers \$59,630 annual salary

Film and Video Editors \$65,050 annual salary

# **ADDITIONAL CAREER CHOICES**

Animator

Artist and Related Workers

Assistant Director

Audio and Video Equipment Techs

Background Artist

Broadcast Technician

Camera and Photographic Equipment

Repairers

Cinematographer

**Computer Programmers** 

Costume Designer/Tailor

Director of Photography

**Graphic Designers** 

Grip

Lighting Technician

Photographers

Reporter

Script Supervisor

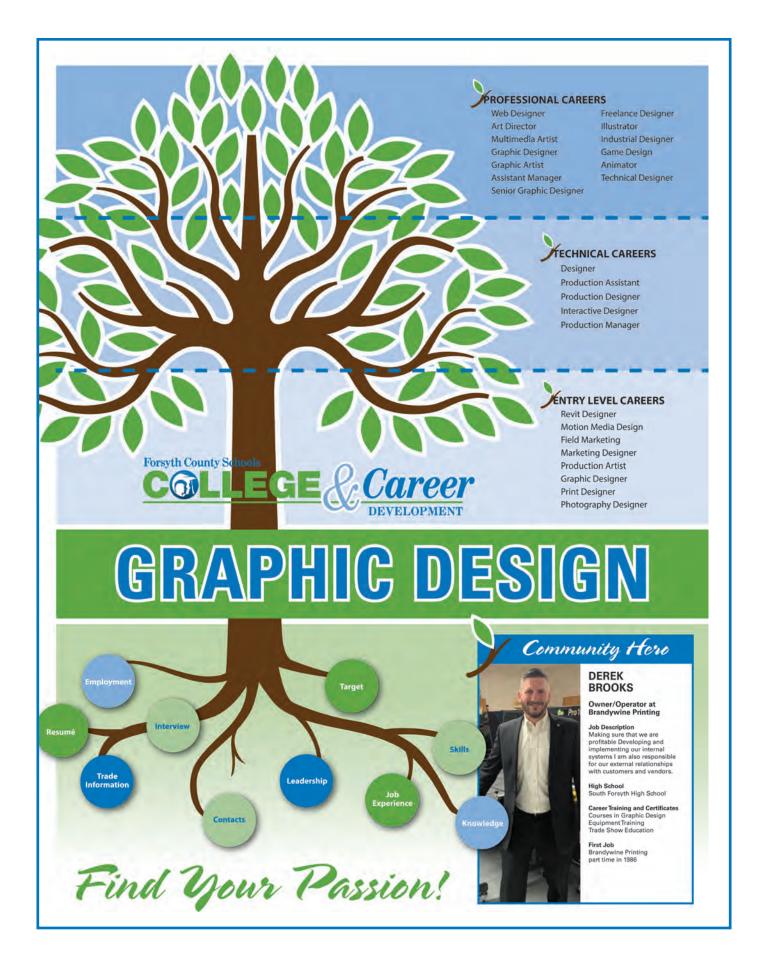
Set and Exhibit Designers

Sound Engineering Technician

Station Manager

Technical Directors/Managers

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





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



ARTS, AUDIO-VIDEO TECHNOLOGY AND COMMUNICATIONS

# GRAPHIC DESIGN PATHWAY

# **TOP CAREER 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

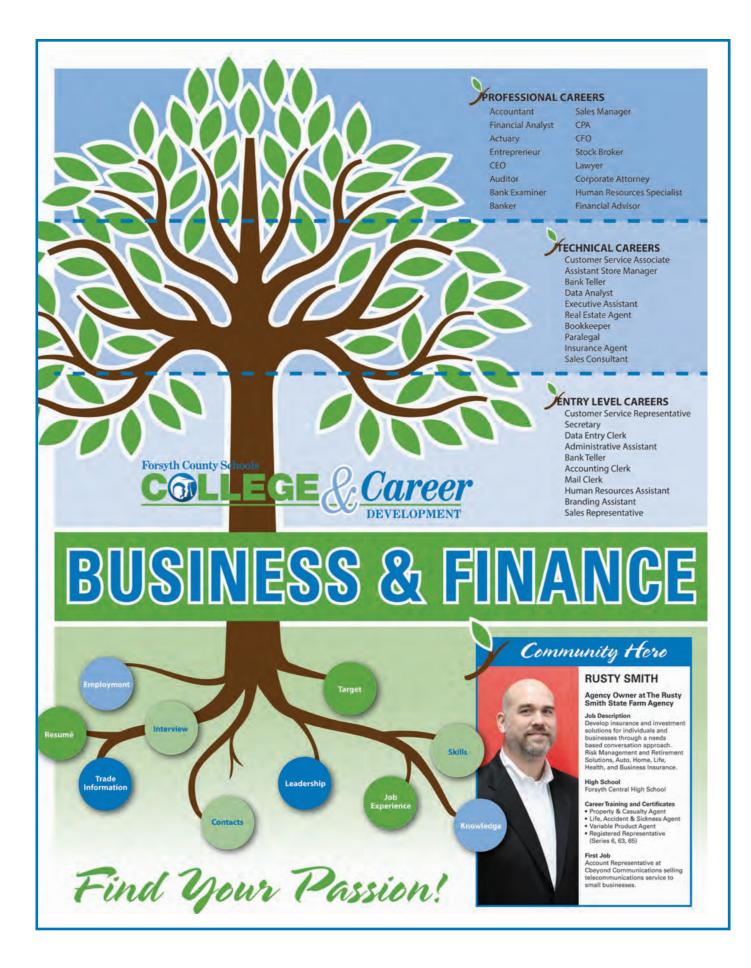
- Fashion Design
- Film and Video Editors
- Illustration

**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



BUSINESS MANAGEMENT AND ADMINISTRATION

# ENTREPRENEURSHIP PATHWAY

# **TOP CAREER 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



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





# BUSINESS MANAGEMENT AND ADMINISTRATION

# HUMAN RESOURCES MANAGEMENT PATHWAY

# **TOP CAREER 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



The International Business pathway provides students with a foundation of core concepts required to succeed in an international business environment. Students will learn essentials for working in an international business environment, managing a business, and owning a business. Key concepts emphasized include global awareness, spirit of entrepreneurship, and cultural competency. Students will also study real, specific, historical cases from international businesses over the years and analyze how those businesses have handled certain situations in foreign markets. Consequently, the use of case studies will allow students to use the knowledge gained to analyze and evaluate decisions made by real international businesses. At the end of this pathway, students will have developed the project management and business management skills that are the basis for developing and managing a business in an international market.

## PATHWAY COURSES

- Introduction to International Business
- Global Awareness and Cultural Competency
- International Business Concepts

# **RECOMMENDED COURSES**

- Accounting
- Business Law
- IB Business and Management
- Principles of Marketing
- Entrepreneurship
- Foreign Language

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- TECHNICAL COLLEGES
  - Business Administration
  - Management
  - Marketing
  - Accounting
  - Banking and Finance
  - Paralegal Studies

COLLEGES/UNIVERSITIES

- International Business and Studies
- Global Marketing Management
- Entrepreneurial Studies

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





# BUSINESS MANAGEMENT AND ADMINISTRATION

# INTERNATIONAL BUSINESS PATHWAY

# **TOP CAREERS CHOICES**

International Marketing Manager \$142,170 Annual Salary

Economist \$107,196 Annual Salary

Foreign Exchange Trader \$102,164 Annual Salary

Supply Chain Manager \$88,227 Annual Salary

International Foreign Policy Advisor \$69,826 Annual Salary

# ADDITIONAL CAREER CHOICES

Logistics Manager

International Trade and Customs Manager

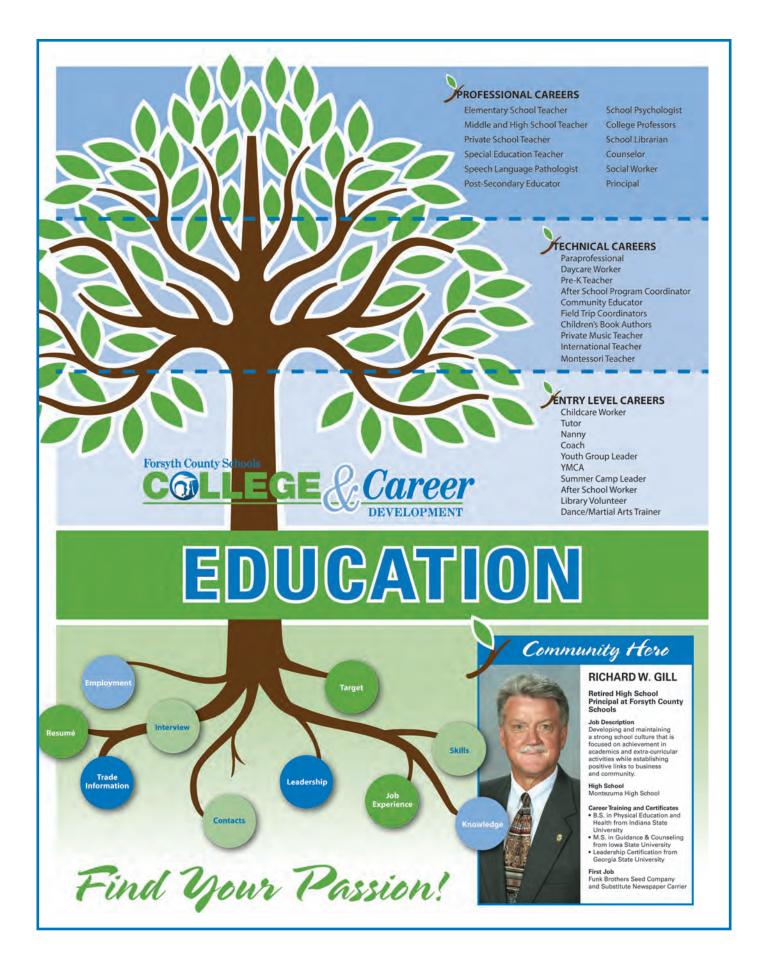
Foreign Service Officer

Trade Specialist

Import/Export Coordinator

Sales Executive

International Accountant





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

- Early Childhood Education I
- Early Childhood Education II
- Early Childhood Education Practicum

# **RECOMMENDED COURSES**

- Any Education Course
- Psychology
- Work-Based Learning
- World Language

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- TECHNICAL COLLEGES
  - Child Care Assistant
  - Child Care Manager
  - Child Development Associate I and II
  - Child Development Specialist
  - Early Childhood Care and Education (Associate Degree)
  - Early Childhood Care and Education Assistant
  - Early Childhood Program Administration
  - Infant-Toddler Childcare Specialist
- COLLEGES/UNIVERSITIES
  - Art Teacher
  - Elementary Teacher
  - Music Teacher
  - Physical Education Teacher

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**EDUCATION AND TRAINING** 

# EARLY CHILDHOOD EDUCATION PATHWAY

# **TOP CAREER CHOICES**

### Elementary School Teacher Bachelor Degree needed \$46,888 annual salary

2,590 annual average openings in Georgia

# Kindergarten Teacher

Bachelor Degree needed \$45,969 annual salary 330 annual average openings in Georgia

#### **Preschool Teacher**

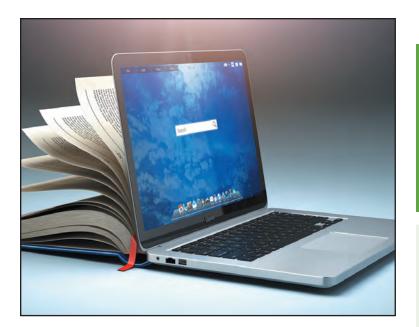
Post-Secondary Vocational Training needed \$24,419 annual salary 500 annual average openings in Georgia

# Special Education Teacher Preschool, Kindergarten or Elementary Bachelor Degree needed

\$46,358 annual salary 450 annual average openings in Georgia

# ADDITIONAL CAREER CHOICES

- After-School Program Supervisor Child Care Administrator
- Child Care Director and Owner
- Child Care Supervisor
- Child Life Specialist
- Education Administrator
- Educational and Teacher Aide
- Elementary School Teacher
- High School Early Childhood Ed. Teacher
- Recreation Attendant
- Special Education Teacher
- Preschool Teacher
- University Instructor and Professor



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





**EDUCATION AND TRAINING** 

# TEACHING AS A PROFESSION PATHWAY

# **TOP CAREER 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

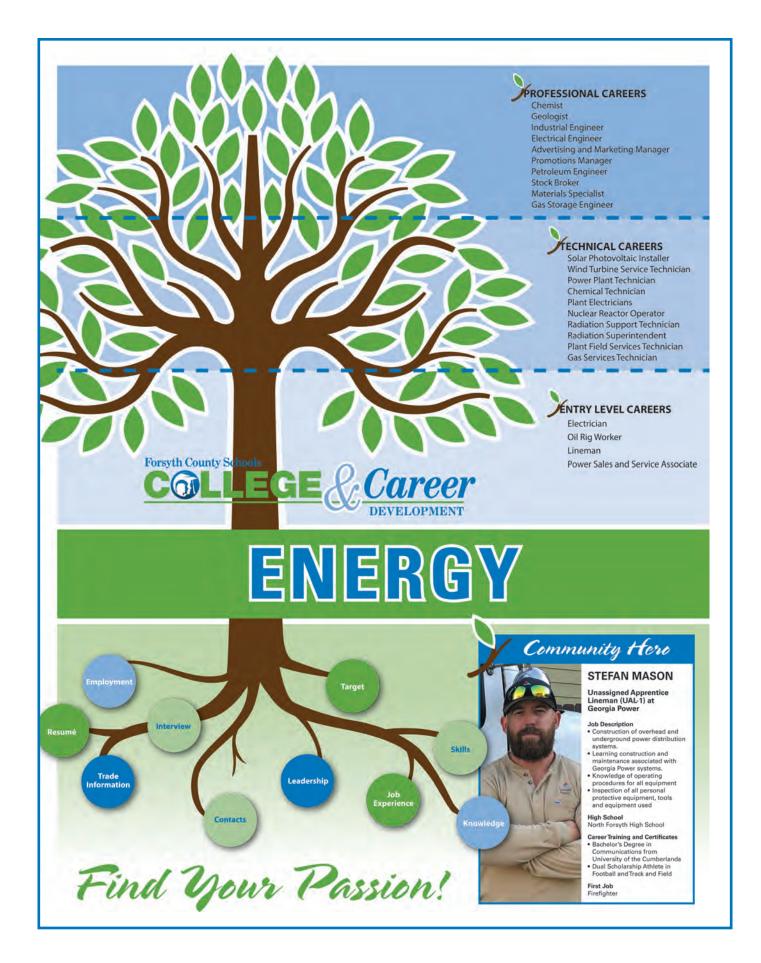
**Recreation Attendant** 

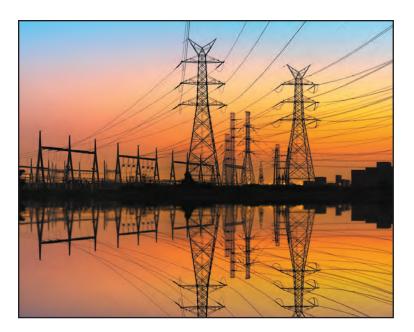
School Administration

Social Services Aide

Special Education Teacher

Teacher





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 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



# 2023-2024 FCS Career and Technical Education 60

ENERGY

# ENERGY SYSTEMS PATHWAY

# **TOP CAREER 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





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





# 2023-2024 FCS Career and Technical Education 62

FINANCE

# ADVANCED ACCOUNTING PATHWAY

# **TOP CAREER 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



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 I

#### **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





# 2023-2024 FCS Career and Technical Education 63

FINANCE

# BUSINESS ACCOUNTING PATHWAY

# **TOP CAREER 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



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-ofwork 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





# 2023-2024 FCS Career and Technical Education 64

FINANCE

# FINANCIAL SERVICES PATHWAY

# **TOP CAREER 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 pathway explores what new financial technologies are emerging and how technological advances in data analytics are enabling innovation in the financial industry. Through this pathway students examine new services and business models in various areas of banking, insurance, and financial asset management. Students will not only understand the concepts but will apply their knowledge to situations and defend their actions, decisions, and choices through the knowledge and skills acquired in this course. Various forms of technologies and internet research will be highlighted to expose students to the resources available within financial technology. The pathway focuses heavily on the usage of technology that powers financial ecosystems, digital finance platforms, mobile payments, and digital asset management. Students will explore the characteristics and functions of electronic and mobile payment systems and the design and development of dynamic, data-driven financial applications using client- and server-side architecture.

# PATHWAY COURSES

- Introduction to Financial Technology
- Financial Technologies and Services
- Coding for FinTech

### **RECOMMENDED COURSES**

- Introduction to Business and Technology
- Introduction to Digital Technology
- Financial Literacy
- · Principles of Accounting I
- Computer Science Principles
- or AP Computer Science Principles
- Digital Design
- Embedded Computing

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- TECHNICAL COLLEGES, COLLEGES/UNIVERSITIES
  - Associates of Science
  - Bachelor of Business

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





FINANCE

# FINANCIAL TECHNOLOGY (FINTECH) PATHWAY

# **TOP CAREER CHOICES**

- Account Manager \$62,832 annual salary
- Analytics Specialist \$33,000 - \$60,000 annual salary
- Salesforce Administrator \$88,344 annual salary

# ADDITIONAL CAREER CHOICES

#### Art Director

- **Business Development Manager**
- **Business Systems Analyst**
- Customer Service Rep
- Data Scientist
- Database Administrator
- Email Marketing Specialist
- **Product Manager**
- Senior NET Developer
- Software Engineer/Developer







This pathway lays the foundations for subsequent Leadership Education courses by teaching the basics of leadership, citizenship, personal growth, appearance and responsibility, general Marine Corps knowledge, drill, and physical training. Leadership Education courses at this level provide elevated instruction in the basics of leadership, citizenship, personal growth, appearance and responsibility, and additional instruction and practical application general military subjects. An introduction to career awareness is also introduced, along with an emphasis placed on development of leadership skills, citizenship, physical training and drill. Minimum performance requirements for each course are based on successful completion of competencies according to the national Marine Corps JROTC curriculum.

# 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
- Drill Team
- Raiders
- Rifle Team



GOVERNMENT AND PUBLIC ADMINISTRATION

# JROTC MARINES PATHWAY

# **TOP CAREER 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 www.gafutures.org 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



This pathway is focused on planning and performing government functions at the local, state and federal levels, including governance, national security, foreign service, planning, revenue and taxation, and regulations. Government and public administration workers help pass and enforce laws, rules and regulations. They work in national, state, or local government. They plan, coordinate and manage a huge range of services to ensure that organizations run efficiently, economically and equitably. Public administrators typically work in civil service, foreign service and consulting. Most "civil servants", as they are called, work for state and local governments, such as counties and municipalities.

# PATHWAY COURSES

- Introduction to Government and Public Administration
- Government Public Administration: State and Federal Issues
- Government Public Administration: Local and State Issues

### **RECOMMENDED COURSES**

- Literary Types/Composition
- Journalism
- Oral/Written Communications
- Speech
- Astronomy or AP/IB Science
- Current Issues
- AP/IB Soc Studies
- Psychology
- Sociology
- World Geography

### POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- A two-year college degree in public administration, healthcare administration, human services management or political science
- A four-year college degree in political science, public administration, national security, public policy or revenue
- The Armed Forces

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





#### GOVERNMENT AND PUBLIC ADMINISTRATION

# PUBLIC MANAGEMENT AND ADMINISTRATION PATHWAY

# **TOP CAREERS CHOICES**

Urban and Regional Planner \$53,900 annual salary

Management Analysts \$91,000 annual salary

Postal Service Mail Carrier \$54,000 annual salary

# **ADDITIONAL CAREER CHOICES**

Postal Service Mail Carrier

- Congressional Aide/Lobbyist
- **County Commissioner**
- City and State Officials
- Cryptographer
- Intelligence Analyst
- Foreign Service Officer
- Census Clerk
- Tax Examiner/Tax Clerk
- Internal Revenue Investigator
- Assessor/Auditor
- Urban Regional Planner
- Bank Examiner
- Cargo Inspector/Border Inspector
- Aviation Safety Officer
- Court Administrator or Clerk
- City or County Clerk/Manager
- Military Occupations





The healthcare industry offers jobs in a variety of establishments: hospitals, nursing and residential care facilities, physicians, dental, and other health practitioners offices, home health care services, outpatient care centers, ambulatory health care services and medical and diagnostic laboratories.

# PATHWAY COURSES

- Introduction to Healthcare Science
- Essentials of Healthcare
- Allied Health and Medicine

### **RECOMMENDED COURSES**

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

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- TECHNICAL COLLEGES
  - Clinical Lab Technology
  - Dental Assisting or Hygiene
  - Medical Assisting
  - Nurse Aid
  - Pharmacy Technology
  - Practical Nursing
  - Radiologic Technology
  - Registered Nursing
  - Surgical Technology
- COLLEGES/UNIVERSITIES
  - Doctor
  - Dentist
  - Nurse Practitioner
  - Physical Therapist
  - Registered Nurse
  - Surgeon

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





HEALTH SCIENCE

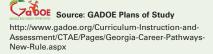
# ALLIED HEALTH AND MEDICINE PATHWAY

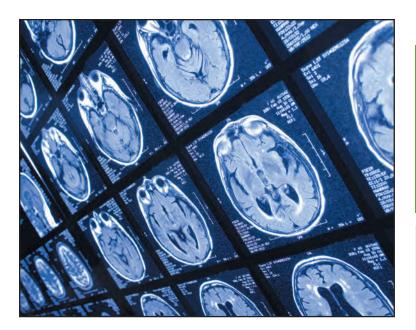
# **TOP CAREERS CHOICES**

- Dental Hygienist \$65,590 annual salary
- Medical and Clinical Laboratory Technician \$51,450 annual salary
- Pediatrician \$156,320 annual salary
- Physical Therapist \$87,590 annual salary
- Surgical Technologist \$46,690 annual salary

# ADDITIONAL CAREER CHOICES

- Clinical Laboratory Technician
- Dental Hygienist
- EMT
- Medical Doctor
- Medical Laboratory Technician
- Orthopedic Technologist
- Paramedic
- Pharmacist
- **Physical Therapist**
- Radiologic Technologist
- Surgical Technologist
- Veterinarian





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

### **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



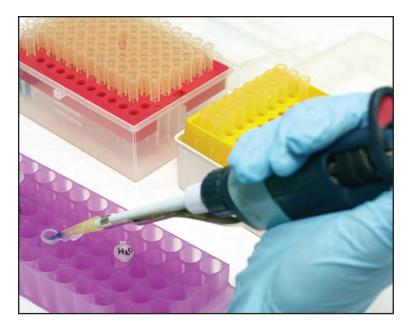


HEALTH SCIENCE

# BIOTECHNOLOGY RESEARCH AND DEVELOPMENT PATHWAY

# **TOP 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



This pathway provides career opportunities for persons with a strong interest in the initial phase of detecting health problems—the diagnostic phase. This phase includes procedures such as X-rays, fluoroscopies, sonograms, and clinical laboratory tests examining blood and other body fluids. Workers in this pathway discover "evidence" that physicians use to make correct diagnoses and administer appropriate treatment. Occupations are increasingly more varied because of complex new technology seeking to explain how the human body works.

# PATHWAY COURSES

- Introduction to Healthcare Science
- Essentials of Healthcare
- Clinical Lab I

# **RECOMMENDED COURSES**

- Biology II
- Chemistry
- Psychology/AP Psychology
- World Language

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

- TECHNICAL COLLEGES
- Associate of Science Degree in Nursing
- Medical Assisting
- Nurse Aide
- Patient Care Assistant
- Practical Nursing
- COLLEGES/UNIVERSITIES
  - Emergency Management
  - Environmental Health
  - Epidemiology
  - Healthcare Management
  - Healthcare Administration
  - Medical Degree (MD)
  - Nursing
  - Public Health

# CAREER AND TECHNICAL STUDENT ORGANIZATIONS





# 2023-2024 FCS Career and Technical Education 72

**HEALTH SCIENCE** 

# DIAGNOSTIC-CLINICAL LAB PATHWAY

# **TOP CAREER CHOICES**

Medical & Health Services Managers Bachelor's Degree \$104,956 annual salary 320 annual average openings in Georgia

Medical & Clinical Lab Technologists Bachelor's Degree \$58,776 annual salary 219 annual average openings in Georgia

Ophthalmic Medical Technologists Postsecondary credentials \$41,009 annual salary 106 annual average openings in Georgia

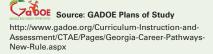
### Medical & Clinical Laboratory Technicians Associates Degree

\$38,166 annual salary 248 annual average openings in Georgia

# **ADDITIONAL CAREER CHOICES**

**Clinical Chemistry Technologists** 

- Immunology Technologists
- Medical and Clinical Laboratory Technicians
- Medical and Health Services Managers
- Medical Lab Assistants
- Medical Technologists
- **Microbiology Technologists**
- Nuclear Medicine Technologists
- **Registered Nurses**





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





**HEALTH SCIENCE** 

# EMERGENCY MEDICAL RESPONDER PATHWAY

### **TOP CAREER 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



The U.S. Bureau of Labor Statistics (BLS) predicts that employment of emergency medical technicians (EMTs) and paramedics will grow 7% between 2018 and 2028, which is faster than the average for all U.S. occupations (www.bls.gov). A growing aging population is expected to increase the likelihood of medical emergencies, thus increasing the need for EMTs and paramedics. Plus, emergency rooms are frequently overcrowded, which increases the amount of time that EMTs and paramedics must spend with each patient. This is also likely to increase the number of job positions.

#### PATHWAY COURSES

- Introduction to Healthcare Science
- Essentials of Healthcare Science
- Emergency Medical Technician

#### POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

Required state licensure from the Georgia Department of Public Health Office of Emergency Medical Services (dph.georgia.gov/EMS)

Required national certification from the National Registry of Emergency Medical Technicians (www.nremt.org)

#### CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**HEALTH SCIENCE** 

# EMERGENCY MEDICAL TECHNICIAN PATHWAY

# **TOP CAREER CHOICES**

Average annual salary for paramedics and EMTs was about \$37,760 in May 2018. During the same month, the highest-paying states were Washington (average \$67,600), the District of Columbia (average \$57,270) and Hawaii (average \$54,370), while the top-paying employers were state governments, with an average of \$61,580.

# ADDITIONAL CAREER CHOICES

Air Ambulances

Clinics

- Colleges and Universities
- Critical Care Transport Units
- Fire Departments
- Hospital Ambulance Services
- Hospital Emergency Departments
- Law Enforcement Agencies
- **Physician Practices**
- Public and Private Ambulance Services
- Surgery Centers



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





**HEALTH SCIENCE** 

# PHLEBOTOMY PATHWAY

### **TOP CAREER 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



Public Health is a branch of Health Science devoted to providing students fundamental healthcare skills and knowledge, communication skills, and technology skills needed in the healthcare industry. Courses allow students to explore occupations and skill sets in environmental health, community health, epidemiology, disaster management, and geriatrics. Specifically, students will gain skills, knowledge, and exposure to human growth and development, patient and family health, medical terminology, wellness, and preventative care. In addition, students will also learn about the physiology of each body system, understanding of common diseases, disorders and emerging diseases (prevention, diagnosis and treatment), and the pathophysiology of diseases and disorders.

#### PATHWAY COURSES

- Introduction to Healthcare Science
- Essentials of Healthcare
- Applications of Public Health

#### **RECOMMENDED COURSES**

- Biology II
- Business
- Chemistry
- Psychology/AP Psychology
- World Language

#### POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Associate of Science Degree in Nursing
- Medical Assisting
- Nurse Aide
- Patient Care Assistant
- Practical Nursing
- COLLEGES/UNIVERSITIES
  - Emergency Management
  - Environmental Health
  - Epidemiology
  - Healthcare Management
  - Healthcare Administration
  - Medical Degree (MD)
  - Nursing
  - Public Health

### CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**HEALTH SCIENCE** 

# PUBLIC HEALTH PATHWAY

### **TOP CAREERS CHOICES**

Environmentalist \$73,230 Average Annual Salary

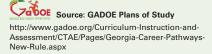
Epidemiologist \$74,560 Average Annual Salary

Medical/Health Services Manager 104,000 Average Annual Salary

Nursing- Registered Nurse \$75,330 Average Annual Salary

Physician \$208,000 Average Annual Salary

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





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





# 2023-2024 FCS Career and Technical Education 77

**HEALTH SCIENCE** 

# SPORTS MEDICINE PATHWAY

## **TOP CAREER 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**

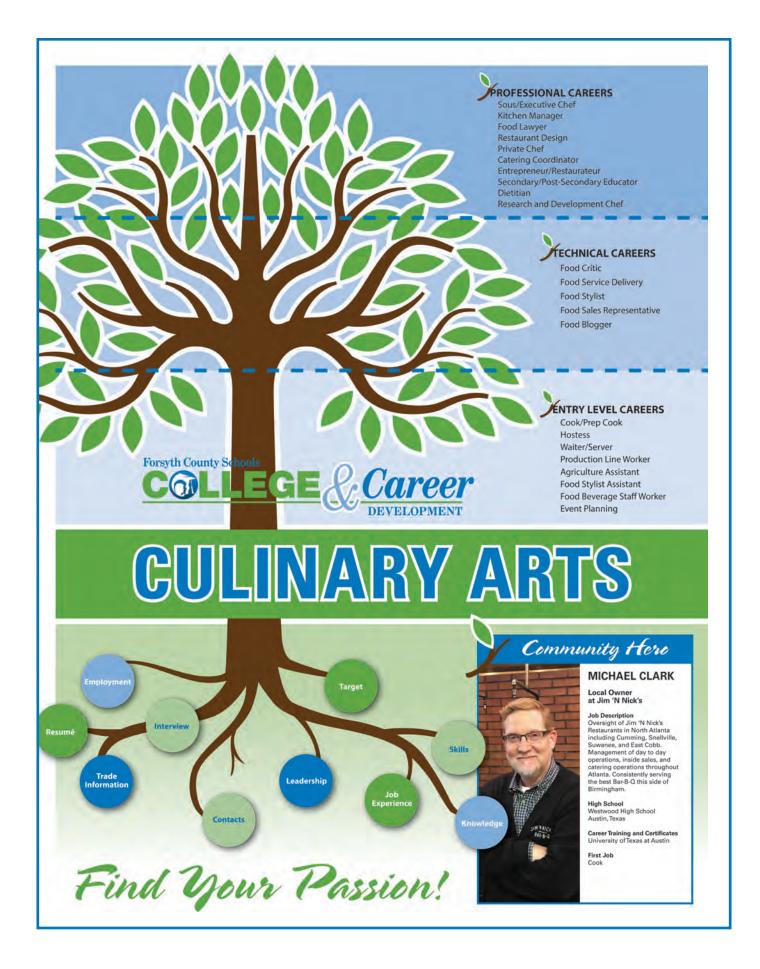
Master Degree needed \$65,042 annual salary 120 annual average openings in Georgia

#### **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





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#### **HOSPITALITY AND TOURISM**

# CULINARY ARTS PATHWAY

# **TOP CAREER 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

- 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 Georgia. 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





#### **HOSPITALITY AND TOURISM**

# HOSPITALITY, RECREATION AND TOURISM PATHWAY

### **TOP CAREER 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

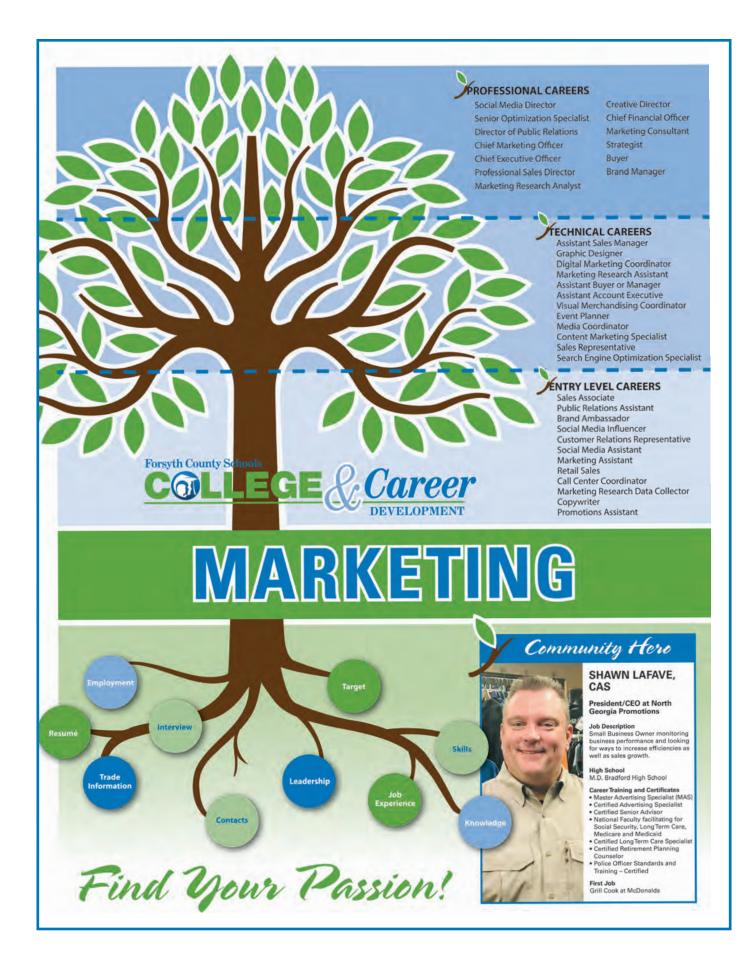
Public Relations Bachelors degree \$58,020 per year

- 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** 

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





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



### **HOSPITALITY AND TOURISM**

# SPORTS AND ENTERTAINMENT MARKETING PATHWAY

# **TOP CAREER 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**

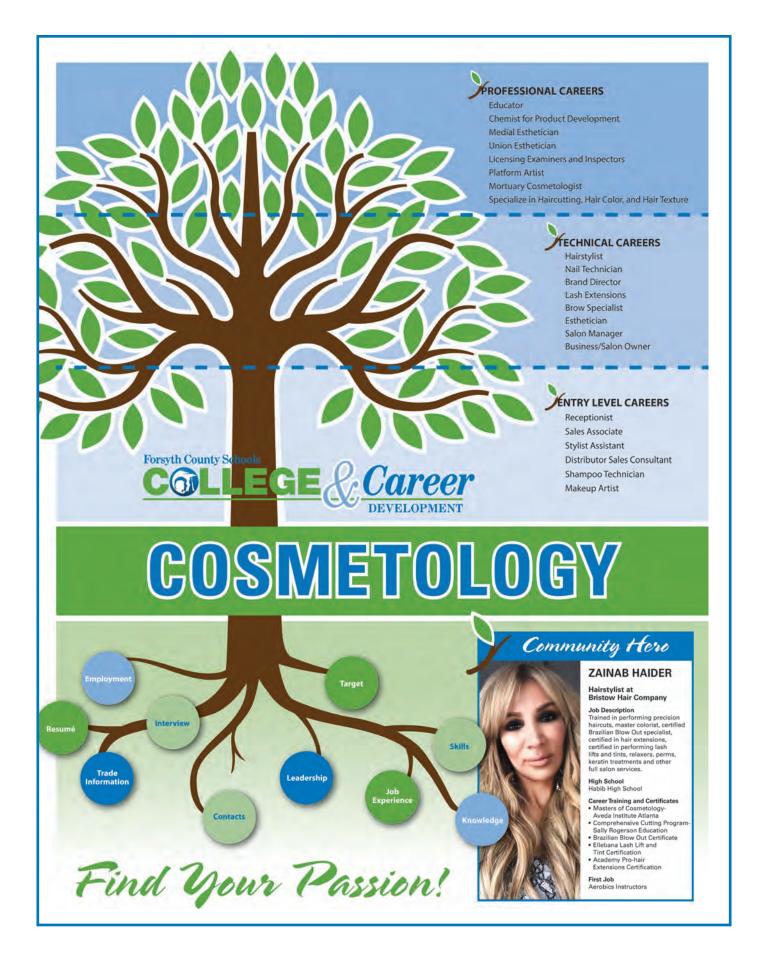
Bachelor Degree needed \$48,672 annual salary 120 annual average openings in Georgia

#### **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





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





**HUMAN SERVICES** 

# COSMETOLOGY PATHWAY

## **TOP CAREER 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





Students enrolled in the Interior Design pathway will learn about colors, textures, furniture, lighting, and space in public and private sectors including offices, airports, theaters, malls, restaurants, hotels, schools, hospitals, and private homes. Students will use the latest software applications to learn about designing, planning, managing, building and maintaining the built environment.

#### PATHWAY COURSES

- Foundations of Interior Design
- Fundamentals of Fashion
- Textile Science
- RECOMMENDED COURSES
  - Introduction to Graphics and Design
  - Foreign Language
  - Visual Art Courses
  - Work-Based Learning

# POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Architectural CAD Drafter
- Advanced CAD Drafter
- Advanced CAD Technician
- Auto CAD Refresher
- Auto CAD Specialist
- Auto CAD User
- CAD Operator
- Drafter Assistant
- Drafter Technician
- Drafter Aid
- Graphic Arts
- Landscape Design Technician
- Residential Drafting Technician
- COLLEGES/UNIVERSITIES
  - Architecture
  - Interior Design

#### CAREER AND TECHNICAL STUDENT ORGANIZATIONS





**HUMAN SERVICES** 

# INTERIORS, FASHION, AND TEXTILES PATHWAY

#### **TOP CAREER CHOICES**

#### Architect

Bachelor Degree needed \$71,989 annual salary 100 annual average openings in Georgia

# **Commercial and Industrial Designer**

Bachelor Degree needed \$52,312 annual salary 30 annual average openings in Georgia

#### **Graphic Designer**

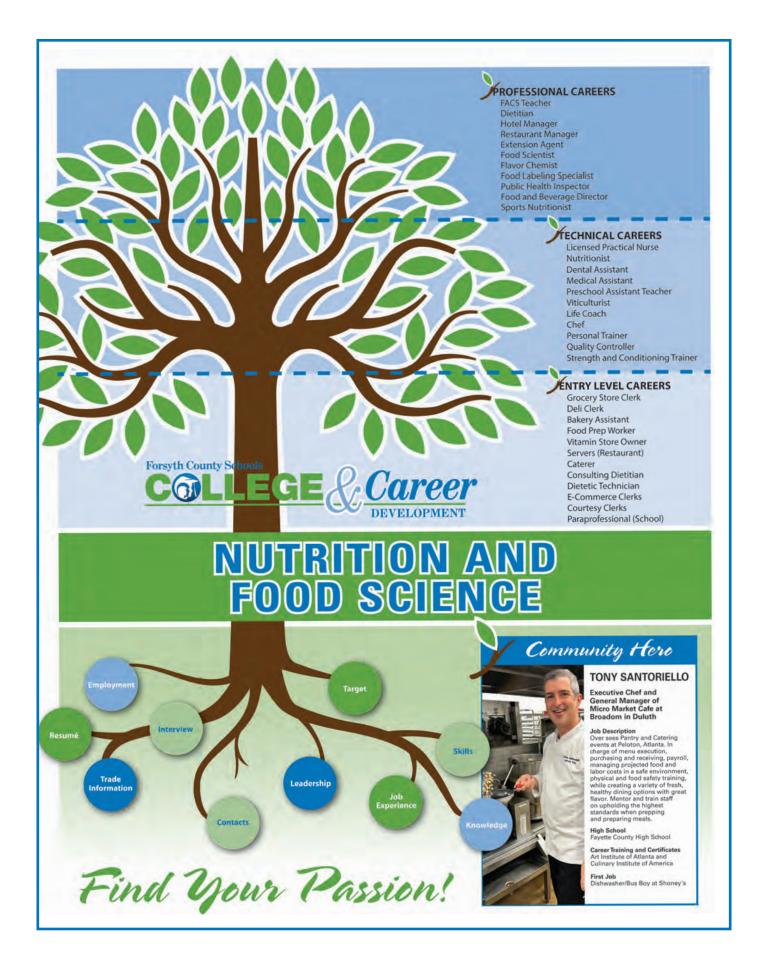
Bachelor Degree needed \$44,034 annual salary 160 annual average openings in Georgia

#### **Interior Designer**

Associate Degree needed \$47,320 annual salary 100 annual average openings in Georgia

### ADDITIONAL CAREER CHOICES

Architect **Building Code Official** Computer Aided Drafter (CAD) **Cost Estimator Display Designer** Family & Consumer Science Teacher Floral Designer Furnishing & Equipment Sales Manager **Furniture Designer** Industrial Designer Interior Designer Interior Designer Assistant Interior Design Specialist Landscape Designer Manufacturers' Representative Modeler Photographer Renderer **Retail Manager** Set Designer **Specifications Writer** 





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





**HUMAN SERVICES** 

# NUTRITION AND FOOD SCIENCE PATHWAY

## **TOP CAREER 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

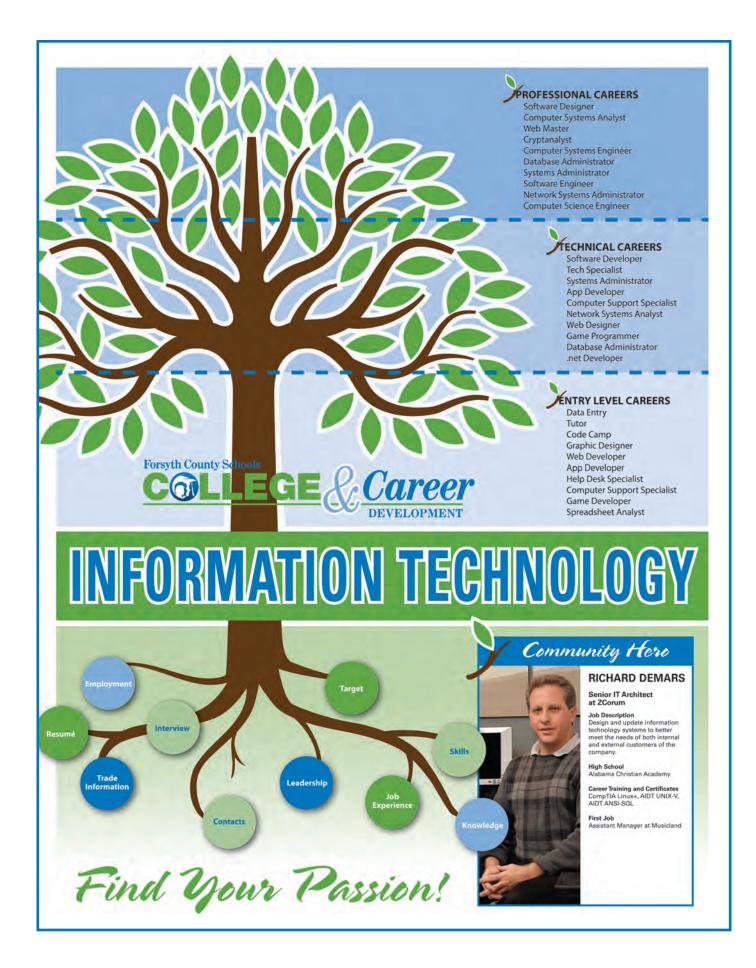
#### Health Education

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





Artificial Intelligence is an area of study that deals with the simulation of intelligent behavior in computers. Artificial Intelligence sits at the intersection and synergy of critical components from a variety of fields including programming, data science, mathematical reasoning, creative problem solving, ethics, and applied experiences. Students in the AI pathway will apply professional software development tools and processes to create functional, real-world applications of Artificial Intelligence using machine learning.

#### PATHWAY COURSES

- Foundations of Artificial Intelligence
- Artificial Intelligence Concepts
- Artificial Intelligence Applications

#### **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
  - Certified Artificial Intelligence Engineer
  - Google Data Analytics Certificate
  - IBM Applied Al Professional Certificate
  - IBM AI Engineering Professional Certificate
  - IBM Data Science Professional Certificate
  - Microsoft Certified: Azure Al Fundamentals
- COLLEGES/UNIVERSITIES
  - Analytics
  - Artificial Intelligence & Innovation
  - Cognitive Science
  - Computational Mathematics
  - Computational Science & Engineering
  - Computer Science with Al Research
  - Electrical/Mechanical Engineering
  - Information and Data Sciences

### CAREER AND TECHNICAL STUDENT ORGANIZATIONS



#### **INFORMATION TECHNOLOGY**

# ARTIFICIAL INTELLIGENCE PATHWAY

### **TOP CAREER CHOICES**

#### Machine Learning Engineers

Leverage big data tools and programming frameworks to create production-ready scalable data science models that can handle terabytes of realtime data. \$145,300+ average annual salary

#### **Data Scientists**

Collect and analyze data to glean insights using various technology tools, processes, and algorithms, extracting knowledge from data and identifying meaningful patterns. \$119,300+ average annual salary

#### **Business Intelligence Developers**

Process complex internal and external data to identify trends, typically responsible for designing, modeling, and maintaining complex data in highly accessible cloudbased data platforms. \$92,200+ average annual salary

#### ADDITIONAL CAREER CHOICES

Big Data Engineer/Architect

**Computer Vision Engineer** 

Data Mining/Analysis

Natural Language Processing Engineer

Researcher/Research Scientist

**Robotics Engineer** 

Software/AI Engineer

Software Architect

User Experience (UX) Designer/Developer



The Cloud Computing courses in information technology provides a foundational knowledge in programming languages, software development, app creation and the basics of cloud computing. Technical content includes designing, developing, and deploying a virtual private network, creating a cloud environment that is scalable, and demonstrating safe use of big data. College preparatory students benefit from this pathway if they plan to pursue a degree in Computer Science. It also serves as a foundation for those students wishing to pursue a certificate credential at the technical school level or enter the workforce with entry-level skills.

#### **PATHWAY COURSES**

- Introduction to Software Technology
- Computer Science Principles or AP Computer Science Principles
- Cloud Computing

#### **RECOMMENDED COURSES**

- Mathematics
- Programming Languages
- Engineering

#### POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES

- Associate of Applied Science
- COLLEGES/UNIVERSITIES
  - Bachelor of Science, Computer Science
  - Bachelor of Science, Computer Engineering
  - Master or Ph.D of Computational Science and Engineering
  - Master or Ph.D of Computer Science
- CERTIFICATES
  - AWS Certified Cloud Practitioner
  - Google Associate Cloud Engineer
  - Microsoft Certified Azure Fundamentals

#### CAREER AND TECHNICAL STUDENT ORGANIZATIONS



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#### **INFORMATION TECHNOLOGY**



# CLOUD COMPUTING PATHWAY

### TOP CAREERS CHOICES

AWS Certified Cloud Practitioner \$113,937

Software Engineer Bachelor's Degree or higher \$104,730

Computer Systems Engineer Bachelor's Degree or higher \$86,960

Systems Administrator Bachelor's Degree or higher \$82,897

#### **ADDITIONAL CAREER CHOICES**

Software Engineer

- Cloud Engineer
- Data Engineer
- System Engineer
- Full Stack Developer
- Java Developer
- Data Scientist
- Systems Administrator
- .NET Developer
- Front-end Developer



**INFORMATION TECHNOLOGY** 

# COMPUTER SCIENCE PATHWAY



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

#### **PATHWAY COURSES**

- Introduction to Software Technology
- Computer Science Principles or AP 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





## **TOP CAREER CHOICES**

#### 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

- **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 Hardware 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



**INFORMATION TECHNOLOGY** 

# CYBERSECURITY PATHWAY

### **TOP CAREER 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 Software Technology
- Computer Science Principles or AP 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





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**INFORMATION TECHNOLOGY** 

# GAME DESIGN PATHWAY

# **TOP CAREER CHOICES**

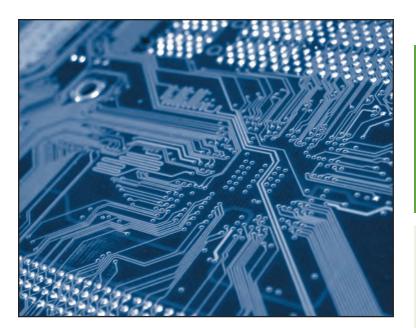
- Computer Game Designer Bachelor Degree Required \$63,970 annual salary
- Multimedia Artists and Animators Bachelor Degree needed \$70,530 annual salary

**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



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

#### PATHWAY COURSES

- Introduction to Software Technology
- Computer Science Principles or AP 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





**INFORMATION TECHNOLOGY** 

# PROGRAMMING PATHWAY

# **TOP CAREER 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

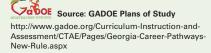
#### **Computer System Analysts**

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

- 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 Software Technology
- Computer Science Principles or AP 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





#### **INFORMATION TECHNOLOGY**

# WEB DEVELOPMENT PATHWAY

# **TOP CAREER 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

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





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





LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

# FIREFIGHTING PATHWAY

# **TOP CAREER 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

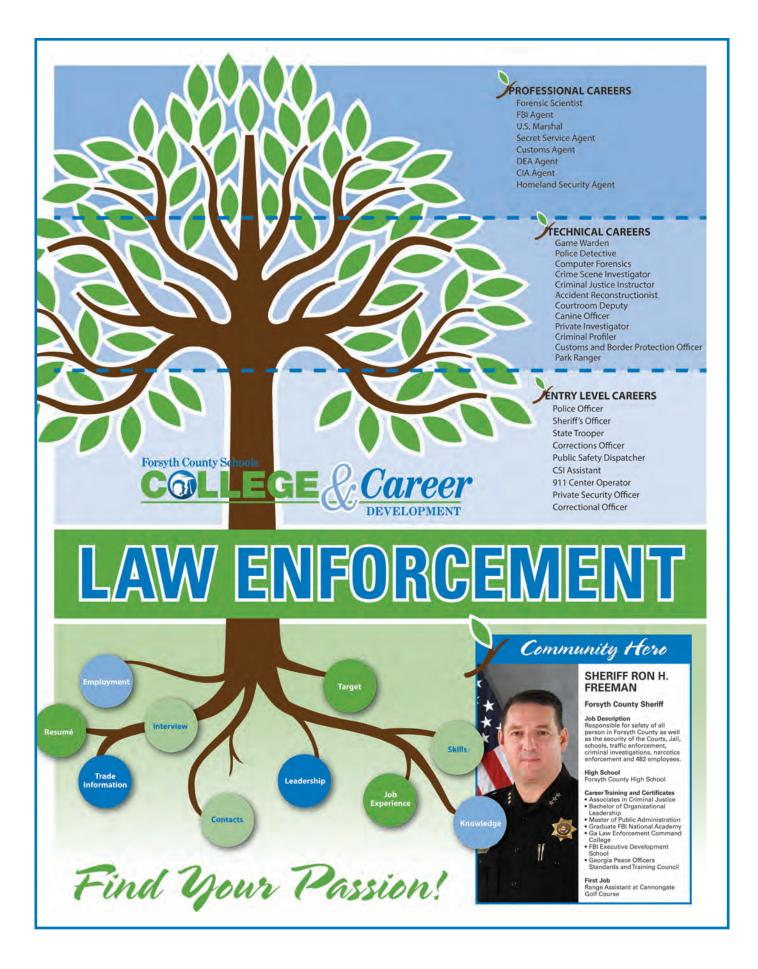
Prevention Specialists Lifeguards,

Ski Patrol, Other Recreational Protective

Service Workers Private Detectives and

Investigators

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





Students will examine the basic concepts of law related to citizens' rights and the responsibilities, and students will receive instruction in critical skill areas including: communicating with diverse groups, conflict resolution, ethics, CERT, basic firefighting, report writing, terrorism, civil and criminal law. Students will learn investigative techniques and crime scene investigation skills using the scientific method.

#### PATHWAY COURSES

- Introduction to Law, Public Safety, Corrections, and Security
- Criminal Justice Essentials
- Forensic Science and 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



LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

# LAW ENFORCEMENT/ FORENSIC SCIENCE PATHWAY

### **TOP CAREER CHOICES**

Forensic Psychologist Medical Degree \$143,000 annual salary

Forensic Investigator Bachelor Degree \$72,000 annual salary

Police Officer

Postsecondary Certificate \$48,000 annual salary

### **ADDITIONAL CAREER CHOICES**

Fingerprint Technician Forensic Pathologist Medical Examiner Coroner Evidence Technician Detective Sheriff's Officer Special Agent





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





LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

# LEGAL SERVICES/ APPLICATIONS OF LAW PATHWAY

### **TOP CAREER 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

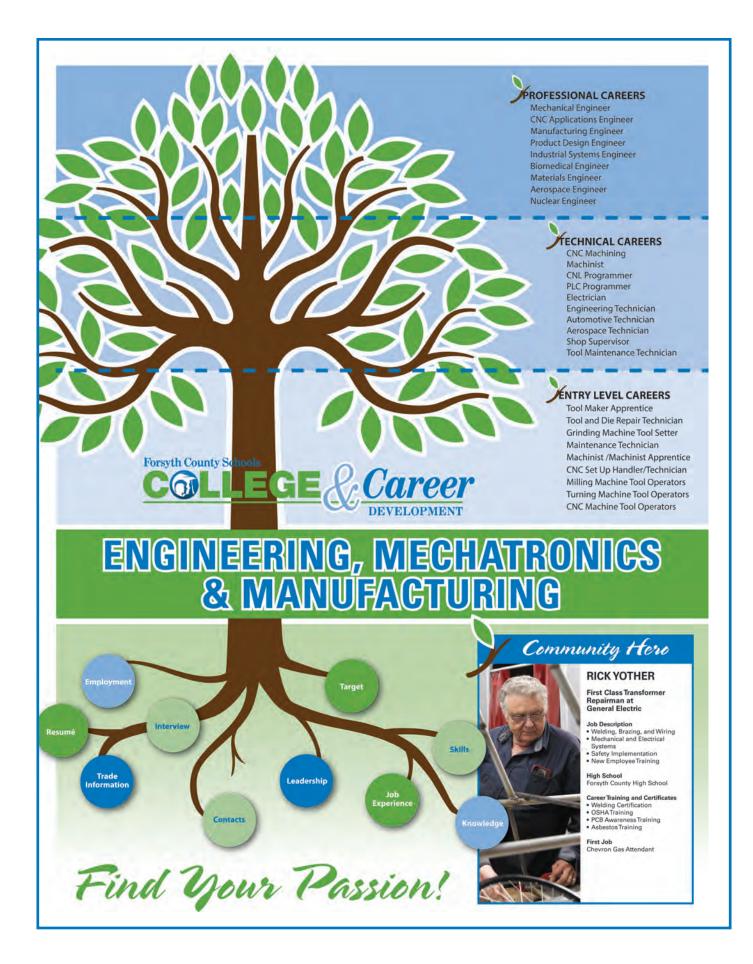
Firefighters

Information Security IT Specialists

**Police Officers** 

Public Safety Communication

Security & Protective Services





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
- AC Theory, Electric Motors, and Hydraulic Systems
- Semiconductors Mechanical Systems, 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



MANUFACTURING

# MECHATRONICS PATHWAY

#### **TOP CAREER 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





MARKETING

# FASHION, MERCHANDISING & RETAIL MANAGEMENT PATHWAY

# **TOP CAREER 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

- **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 buyers
- 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





MARKETING

# **MARKETING AND** MANAGEMENT PATHWAY

# **TOP CAREER 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



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
- · Promotional and Digital Marketing
- Integrated Marketing Communications

### **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





MARKETING

### MARKETING **COMMUNICATIONS** AND PROMOTIONS PATHWAY

### **TOP CAREER 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

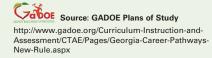
Marketing Managers

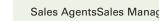
Marketing Strategists

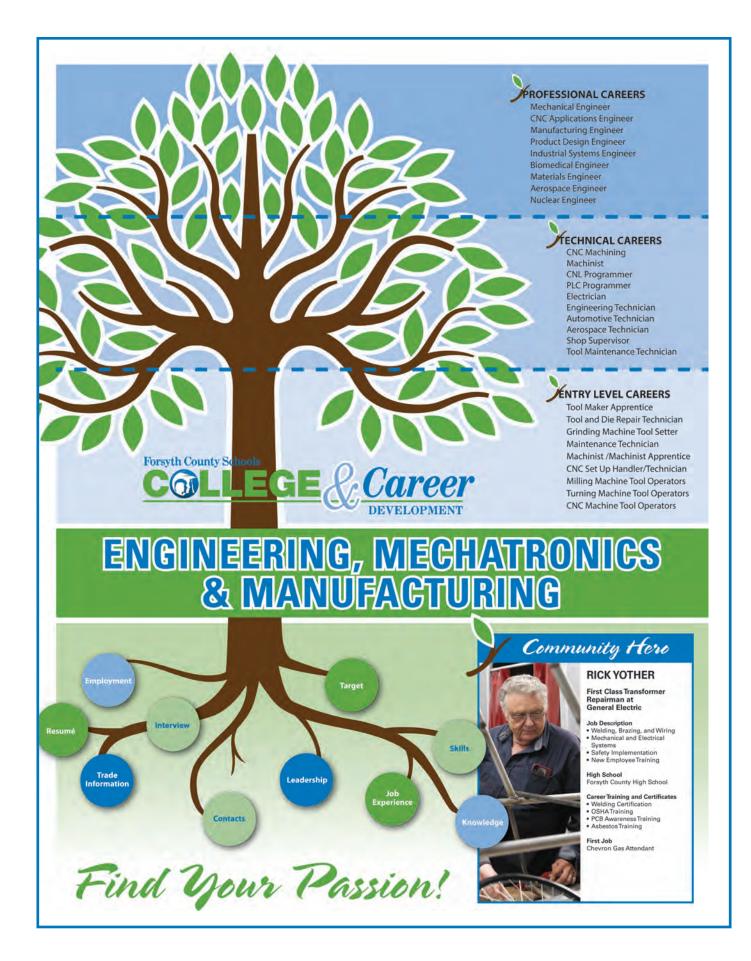
**Public Relations Specialists Advertising** 

Sales AgentsSales Managers

Sales Representatives









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



SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

### ENGINEERING AND TECHNOLOGY PATHWAY

### **TOP CAREER CHOICES**

#### **Civil Engineer**

Bachelor Degree needed \$56,259 annual salary

### **Electrical Engineer**

Bachelor Degree needed \$52,990 annual salary

### **Industrial Engineer**

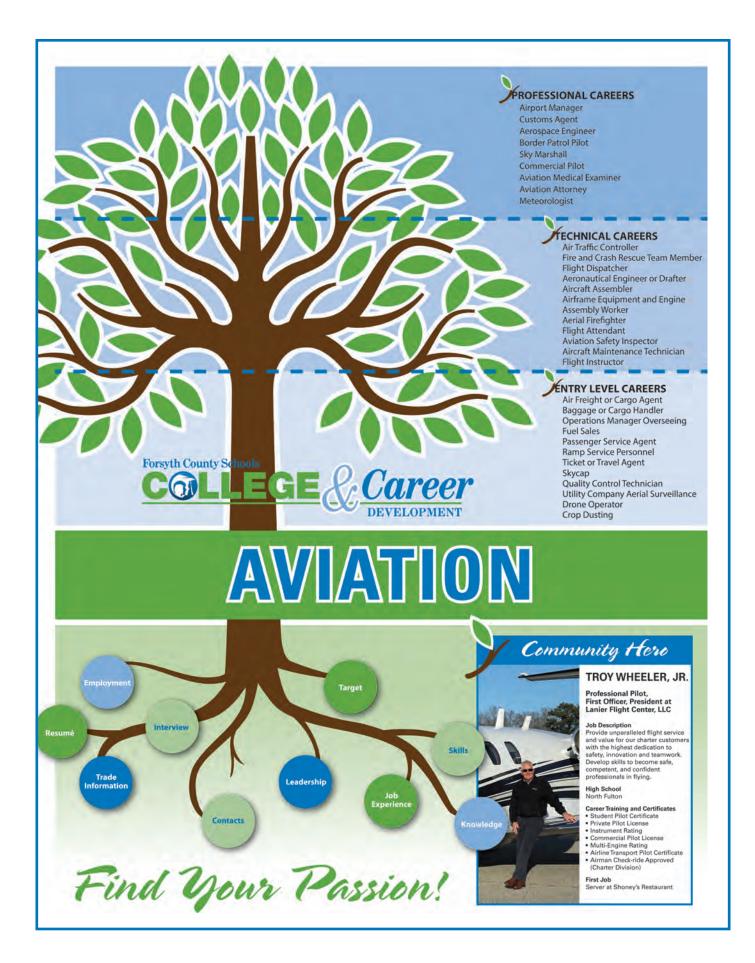
Bachelor Degree needed \$47,720 annual salary

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
- Diattoi
- Machinist
- Manufacturing
- Mechanical Engineer
- Quality Control Inspector





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





TRANSPORTATION, DISTRIBUTION, & LOGISTICS

### AEROSPACE FLIGHT OPERATIONS PATHWAY

### **TOP CAREER 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**



The Unmanned Aircraft Systems Pathway provides students a fundamental knowledge base in aviation history and regulations, the basics of flight, aerospace careers, and factors influencing work. This pathway provides a foundation for a student to earn a commercial license to pilot an unmanned aircraft system. Topics covered will be weather and effects of weather on an unmanned aircraft, types and uses of unmanned aircraft, pre-flight planning and checks, FAA requirements, technology and remote instruction, radio communications, and more. Students will have an opportunity to earn their remove pilot license by taking and successfully passing the FAA Part 107 Exam.

### **PATHWAY COURSES**

- Fundamentals of Aerospace
- Flight Operations I
- Unmanned Aircraft Systems

### **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

TECHNICAL COLLEGES

- Drone Technology
- FAA Part 107 Certificate
- Unmanned Aircraft Systems Operations
- Drone Training
- Unmanned Aerial Systems
- COLLEGES/UNIVERSITIES
  - Aeronautics and Engineering
  - Aerospace Science
  - Air Traffic Management
  - Aviation Management
  - Aviation Safety and Operations
  - Unmanned Aircraft Systems Science

### CAREER AND TECHNICAL STUDENT ORGANIZATIONS





TRANSPORTATION, DISTRIBUTION, & LOGISTICS

### DRONE/UNMANNED AIRCRAFT SYSTEMS PATHWAY

### **TOP CAREER CHOICES**

Unmanned Aircraft Vehicle (UAV) Pilot \$80,415 annual salary

Public Safety/Emergency Services \$77,892 annual salary

Surveyors and Mapping Technicians \$66,680 annual salary

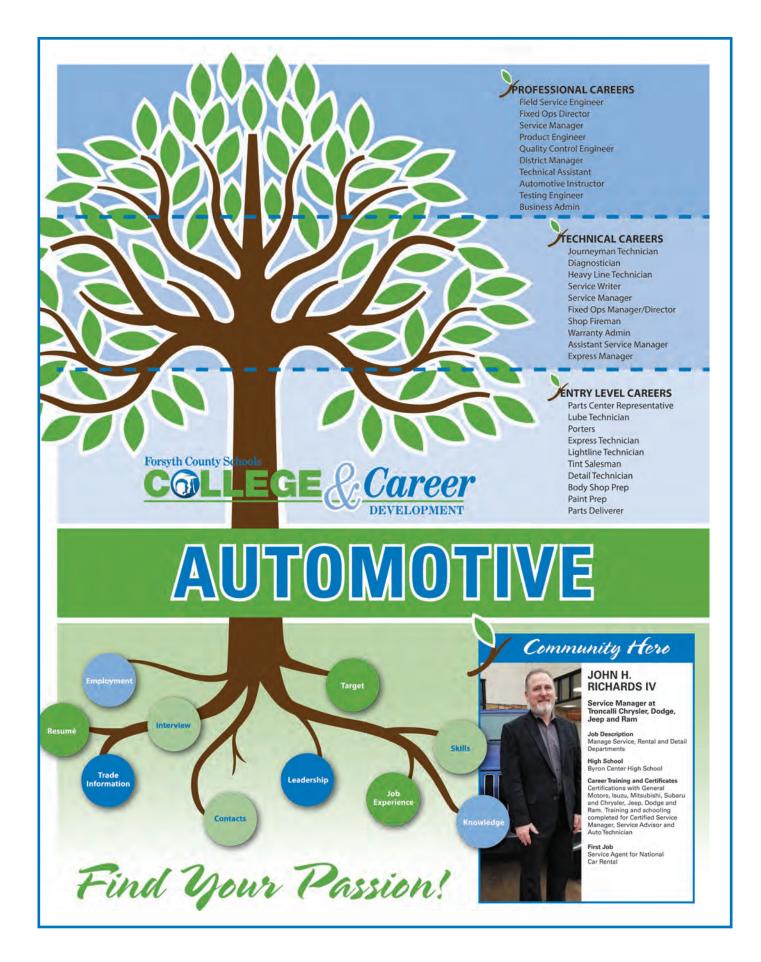
Television, Video and Film Camera Operators and Editors \$61,900 annual salary

Photographers \$41,280 annual salary

### **ADDITIONAL CAREER CHOICES**

- Unmanned Aircraft Vehicle (UAV) Pilot
- Public Safety/Emergency Services
- Surveyors and Mapping Technicians
- Television, Video, and Film Camera
- **Operators and Editors**
- Photographers
- Deliverv Services
- Insurance and Claim Research
- Lighting Technician
- Agriculture
- **Delivery Services**
- Engineering
- Insurance and Claim Research
- Mining Inspections
- **Research Hazardous Material Inspections**
- **Nuclear Power Plant Inspections**
- Sewer and Cave Inspections
- Telecommunications and Utility Companies

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





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
- Automotive Service Technology Internship 3

### **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





**TRANSPORTATION, DISTRIBUTION, & LOGISTICS** 

### AUTOMOTIVE TECHNOLOGY PATHWAY

### **TOP CAREER 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)

Key-Reide Source: GADOE Plans of Study http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Georgia-Career-Pathways-New-Rule.aspx



**WORKFORCE READY** employability skills are transferrable skills and key personal attributes which are highly valued by employers and essential for effective performance in the workplace. Unlike professional or technical skills, these employability skills are generic in nature, rather than job-specific, and are common to all work roles and workplaces across all industry types. Employability skills are also often referred to as employment skills, soft skills, work-readiness skills or foundational skills. They often improve your performance, minimize errors and promote collaboration with your coworkers, enabling you to perform your role more effectively. Employers have high regard for employability skills because they are much harder to teach than job-specific skills. Some employable qualities come naturally, while others can be acquired through education, work or daily practice. Workforce Ready is an employability skills pathway in which you take a deep dive into developing competency and understanding including:

- the significance of work/jobs on individual, family, community, state, nation, and world economies
- development of critical thinking skills related to employment and workforce
- communication in workplace and between workers
- customer service techniques in various work settings
- self-advocacy/self-determination skills related to employment, work-related situations, and personal development
- teamwork practices in various settings
- personal and workplace health and safety
- technology applications
- workplace comprehension-reading and listening
- dependability in the workplace
- personal financial literacy
- conflict resolution strategies for the workplace
- leadership through Career Technical Student Organizations

Upon completing the third course of Workforce Ready Pathway, you may earn a minimum of two credentials of value—one selected by the district, and one or more selected collaboratively by the student, teacher, and parent based upon student need. The district selected credential of value is an Employability Skills credential. Additional "value added" credentials will support student access to post-secondary education and/or employment, apprenticeship, etc. Students are to be encouraged to earn as many "value added" credentials as necessary to prepare for and reach career goals. They include:

- GeorgiaBEST
- ACT Work Keys National Career Readiness Certificate
- NOCTI Employability Exam 21st Century Skills/Workplace Skills, Employability Skills, or Workplace Readiness)



### **WORKFORCE READY**

### WORKFORCE READY PATHWAY

### WORKFORCE READY PATHWAY

is designed to provide you with heavy exposure to all aspects of workplace readiness and employability skills development through:

- Integration of course content into hands-on class activities as applications of the concepts; not to be treated as a unit or separate body of knowledge
- Project-based learning
- Frequent interaction with business & industry; community as subject matter experts, guest speakers, visits/tours, virtual industry tours, job shadowing, internships, work-based learning placements, and jobs.
- Earned credentials of value at the completion of course 3.

### **PATHWAY COURSES**

Introduction to Career Competencies Career Competencies Advanced Career Competencies

### CAREER CHOICES

All Careers

### VALUE ADDED CREDENTIAL

The student, teacher, and parent may choose any "value added" credential(s) that will support student access post-secondary and/or employment:

- Employment
- ServSafe
- OSHA-10
- Microsoft Office Specialist
- CPR-First Aid
- ACCUPLACER/SAT/ACT program ready scores
- Any identified Technical Certificate of Credit
- Driver's License or State ID card Certified Maintenance Employee (Goodwill)
- Certified Guest Service Professional (Goodwill)
- Customer Service and Sales Certification

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 Career Development 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 COORDINATORS

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.

### 2023-2024 FCS Career and Technical Education 118

### SPECIALTIES INTERNSHIP FORSYTH

APPLY ONLINE AT www.forsyth.k12.ga.us/ctae or email vlowe@forsyth.k12.ga.us!

### INTERNSHIP FORSYTH IS AVAILABLE THROUGH THE FOLLOWING PROGRAMS

- Agriculture, Food, and Natural Resources
- Architecture and Construction
- Arts, A/V 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

Hailey Brock East Forsyth HS and North Forsyth HS

Susan Fagan Lambert HS

Dianne King Denmark HS and West Forsyth HS

Nancy Ruff South Forsyth HS

Lauren Westbrook Forsyth Central HS

# NTERNSHIP FORSYTH **NORK-BASED LEARNING Forsyth County Schools**

Internship Forsyth is a structured experience which connects classroom learning to an engaging job opportunity. Internships can be paid or unpaid. Students are allowed to leave the school campus to intern with local businesses, earning course credit for the experience.







Students

### WHY PARTICIPATE IN INTERNSHIP FORSYTH?

- · Start focused preparation for college, careers, and today's workforce!
- · Gain access to some of the best jobs/internships in the community. Many employers actively seek high school students who are enrolled in Internship Forsyth.
- Stand out when you apply to college internships catch the eye of admissions counselors.
- · Receive internship/work experience directly related to your chosen career pathway.
- Gain marketable skills.

### REQUIREMENTS FOR INTERNSHIP FORSYTH

- Students must have a defined career goal and must have taken or be enrolled in the appropriate related coursework.
- Students must be at least 16 years of age (with reliable transportation).
- Students must have good attendance and grades, positive discipline record, and teacher recommendations.
- For Additional Information: Visit a Career Development Coordinator or School Counselor!

## Ready to Apply? Click the QR Code below or visit https://www.forsyth.k12.ga.us/ctae!

Click on the QR code or link and submit the online appli-

Step 2:

cation.

### Step 1:

REVIEW THE REQUIREMENTS Enrolled in Related Coursework

- 16 Years of Age with Reliable Transportation
- · Ensure you have teacher recommendation information Good Attendance and Grades completed.
- · Positive Discipline Record
- Good Teacher Recommendations



Step 3: APPLY FOR INTERNSHIP

CONNECT WITH CAREER DEVELOPMENT COORDINATOR • Ensure your contact information is correct on the application.

- Your school's Career Development Coordinator will reach out this Spring to discuss placement option
- If accepted, you will be notified after Spring Break and be given information about a Student Orientation Meeting. All students are required to attend.
- · Coordinators will contact school to add coursework to your schedule.

#### COLLEGE Careei DEVELOPMENT FOR ADDITIONAL INFORMATION:

rsyth.k12.ga.us or

### Step 4:

#### SECURE AN INTERNSHIP PLACEMENT

- Vour application will note if you currently have a placement. Make sure this placement will work for your Career Develop-ment Coordinator.
- If you need an internship placement, your Career Devel-opment Coordinator will assist you with options close to the beginning of school. Students are expected to obtain their own job.
- · You are encouraged to work over the summer on your own for placement availability and options, as placements are not quaranteed
- Placements can be paid or unpaid.
- Having your own placement is not required prior to the begin-ning of the school year. You will be given several weeks to explore options in the community

### Step 5:

#### ATTEND ORIENTATION AND COMPLETE PAPERWORK

- Students will be required to attend an introductory meeting with their Career Development Coordinator at the beginning of the school year.
- + Students will meet monthly with their Career Development Coordinator throughout the school year.
- Students will complete required paperwork electronically with their employers at the begin-ning of the school year.

w.forsyth.k12.ga.us/ctae



### 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

APPLY ONLINE AT www.forsyth.k12.ga.us/ctae 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.

# entorship F@rsyth **OB SHADOWING** Forsyth County Schools

Mentorship Forsyth gives motivated, mature students a job shadowing experience designed around the individual student's interest in a specific field or career. Participants will engage with a community mentor and will work with that mentor for the duration of the school year. Mentorships are non-paid experiences in the community. Students are allowed to leave the school campus to job shadow in local businesses and organizations, earning course credit for the experience.







**On-Campus Students** 

### WHY PARTICIPATE IN MENTORSHIP FORSYTH?

- Start focused preparation for college, careers, and today's workforce!
- Explore your passion for a profession.
- Stand out in a competitive college and job market.
- Seek to gain valuable networking skills and contacts.



#### REQUIREMENTS FOR MENTORSHIP FORSYTH

- Students must be at least 16 years of age (with reliable transportation).
- Students must complete a year-long, career-related capstone project.
- Students must have good attendance and grades, positive discipline record, and teacher recommendations.
- For Additional Information: Visit a Career Development Coordinator or School Counselor!

### Ready to Apply?

Click the QR Code below or visit https://www.forsyth.k12.ga.us/ctae!

### Step 1:

REVIEW THE REQUIREMENTS Enrolled in Related Coursework

- 16 Years of Age with Reliable Transportation
- · Good Attendance and Grades
- Positive Discipline Record
- · Good Teacher Recommendations



Step 2: APPLY FOR MENTORSHIP

· Click on the QR code or link

Ensure you have teacher

cation.

completed.

and submit the online appli-

recommendation information

### Step 3:

CONNECT WITH CAREER DEVELOPMENT COORDINATOR · Ensure your contact information is correct on the application.

- Your school's Career Develop ment Coordinator will reach out this Spring to discuss placement options.
- + If accepted, you will be notified after Spring Break and be given information about a Student Orientation Meeting. All students are required to attend.
- · Coordinators will contact school to add coursework to your schedule.

### COLLEG DEVELOPMENT

#### FOR ADDITIONAL INFORMATION: wth.k12.ga.us or visit w w.forsyth.k12.ga.us/ctae

### Step 4: SECURE A MENTORSHIP

#### PLACEMENT

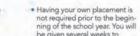
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- · You are encouraged to work over the summer on your own for placement availability and options, as placements are not
- Placements can be paid or unpaid.
- not required prior to the begin-ning of the school year. You will be given several weeks to explore options in the community.

### Step 5:

#### ATTEND ORIENTATION AND COMPLETE PAPERWORK

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- Students will meet monthly with their Career Development Coordinator throughout the school year.
- Students will complete required paperwork electronically with their employers at the beginning of the school year
- Having your own placement is



The Fonyth County Scho or, religion, national origin, age, disat the or bedle anal programs and activities, including its athletic pro

guaranteed.

**SPECIALTIES** 

### CAREER & TECHNICAL STUDENT ORGANIZATIONS

### **CTSO CORE VALUES**

CTSOs are co-curricular organizations with leadership programs and competitive events which reflect current curriculum standards and competencies for the instructional programs they serve. Teachers infuse CTSO activities into the instructional activities, thereby helping students see the real world value of their academic studies.

**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.* 

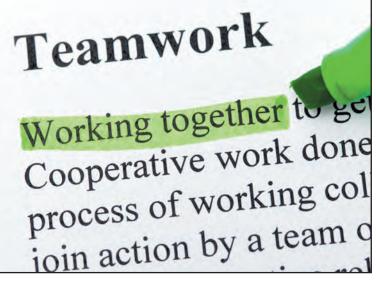
**Leadership** To develop leadership abilities through participation in educational, professional, community and social activities.

**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.





**CTI** Career and Technical Instruction

The mission of Georgia CTI is to provide meaningful leadership and employment experiences for students with disabilities through career, technical and agricultural education courses.

Applicable Pathways: All CTAE Career Clusters and Pathways





**The mission of DECA**, an Association of Marketing Students, is to prepare emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe.

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

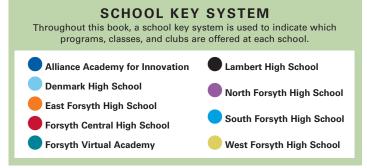




**The mission of Georgia FBLA** is to bring business and education together in a positive working relationship through innovative leadership and career development programs.

Applicable Pathways: Accounting • Computer Science • Cybersecurity • Entrepreneurship • Financial Services • Financial Technology • Game Design • Human Resources Management • Networking • Programming • Web Development





SPECIALTIES

### CAREER & TECHNICAL STUDENT ORGANIZATIONS



FCCLA Family, Career, and Community Leaders of America

**The mission of FCCLA** is to promote personal growth and leadership development through family and consumer sciences education. Focusing on the multiple roles of family member, wage earner and community leaders, members develop skills for life through -- character development, creative and critical thinking, interpersonal communication, practical knowledge, and career preparation.

Applicable Pathways: Culinary Arts • Early Childhood Education • Fashion • Interiors • Nutrition and Food Science • Teaching as a Profession • Textiles





The mission of FFA, Future Farmers of America, is to make a positive difference in the lives of young people by developing their potential for premier leadership, personal growth, and career success through agricultural education.

Applicable Pathways: Agriculture Leadership • Animal Science • Companion Animal Systems • Environmental Agriculture Systems • Landscape Management Systems • Veterinary Science



FIRST ROBOTICS For Inspiration and Recognition of Science and Technology

The mission of FIRST Robotics is to inspire young people to be science and technology leaders and innovators, by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

Applicable Pathways: Engineering • Mechatronics





HOSA Health Occupations Students of America

The mission of HOSA is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill and leadership development for all health science technology education students, therefore, helping students to meet the needs of the health care community.

Applicable Pathways: Biotechnology Research & Development • Emergency Medical Responder • Health Information Technology • Phlebotomy • Sports Medicine • Therapeutic Services



SkillsUSA

Students Taking Action with Recognition

The mission of SkillsUSA is to help its members become world class workers, leaders and responsible American citizens. SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps each student excel.

Applicable Pathways: Animation and Digital Media • Architectural Drawing and Design • Automotive Technology • A/V, Technology & Film • Aviation Maintenance • Carpentry/Construction • Cosmetology • Firefighting • Flight Operations • Graphic Design • Law Enforcement/Criminal Investigations • Legal Services/Applications of Law • Personal Care Services





The mission of the Technology Student Association is learning to lead in a technical world. TSA enhances personal development, leadership, and career opportunities in STEM, whereby members apply and integrate these concepts through intracurricular activities, competitions, and related programs.

Applicable Pathways: Energy Systems • Engineering • Mechatronics



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!







We are excited that this program will honor outstanding CTAE students from each CTSO, Internship/Mentorship, and ROTC with one overall CTAE High School Student of the Year being named for Forsyth County Schools. Along with our high school awards, the night will feature middle school awards and the prestigious Michael Gravitt CTAE Partnership Award to recognize business and industry involvement in our programs.

### FINALIST (DISTRICT LEVEL) REQUIREMENTS FOR STUDENTS:

**I. APPLICATION** Complete the student application in its entirety. All information must be typed.

**II. RÉSUMÉ** Include a résumé that highlights the student's academic achievements, volunteer experience, as well as any career and technical education involvement.

**III. STUDENT REFLECTION** Detail how your career and technical education experience has impacted your future career choices and high school pathway interests.

**IV. STUDENT PHOTOS** Submit one photo of the student actively involved in their career pathway/CTSO and one headshot in professional dress or CTSO blazer with a white shirt. Photos will be used in the awards program. Please make sure the photos highlight the student and are high resolution. Do not submit a group shot where the student is not the focus.

V. CTAE TEACHER LETTER OF RECOMMENDATION Submit a letter of recommendation from a Career, Technical, and Agricultural Education teacher.

VI. PRINCIPAL AND CTAE ASSISTANT PRINCIPAL SIGN-OFF FORM All applications must include the school administration sign-off form with all appropriate signatures.



### CTAE EXCELLENCE AWARDS PROGRAM

### 2022-23 AWARD CATEGORIES:

- New! CTSO Advisor of the Year
- Michael Gravitt Partnership Award
- MS Students of the Year
- HS Agriculture
- HS Architecture & Construction
- HS Automotive
- HS Aviation
- HS A/V Technology & Film
- HS Business/Finance/Information Technology
- HS Cosmetology
- HS Culinary Arts
- HS Education ECE & TAP
- HS Energy/Engineering/Mechatronics
- HS Government & Public Administration/ Law, Public Safety, Corrections & Security
- HS Graphic Design
- HS Health Science
- HS Interior Design
- HS Marketing/Hospitality & Tourism
- HS Nutrition and Food Science
- Internship Forsyth

### Last Year's Winners:

Video From Last Year: https://forsythk12orgmy.sharepoint.com/:v:/g/personal/vlowe\_fors ythk12\_org/ERSiufUq\_8xFrJSXByt\_7kkB\_3B-P7vTTjdbUoghdT6-hA?e=FyFKgF



CAREER, TECHNICAL, AND AGRICULTURAL EDUCATION

A Guide for Business and Industry Involvement



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! When our community becomes a Career Development Partner, they 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 these experiences, students can apply what they are learning in the classroom as they prepare to transition into post-secondary education and training.

### COMMUNITY PARTNERSHIP OPPORTUNITIES:

Career pathways provide seamless instruction in career and technical education that connects academic and technical skills to future educational and career opportunities. Successful completion of a career pathway also allows students to earn industry credentialing required in today's job market and other benefits such as:

- blending rigorous academic/technical preparation
- discovering their interests and passions
- utilizing career development services
- experiencing all aspects of a business or industry
- planning for transitions into post-secondary opportunities

Because a collaborative cannot happen alone, we need your help! Our strategic direction, Workforce Forsyth, guides the district in continuing to develop Georgia's most comprehensive and innovative roadmap for developing and retaining a talented workforce. Our business community and learning organizations have actively come together to provide a seamless connection from secondary to post-secondary which supports our current workforce needs! Please consider how your organization can partner with Forsyth County Schools!





www.forsyth.k12.ga.us/ctae

### **SPECIALTIES BUSINESS AND INDUSTRY INVOLVEMENT**

FOR ADDITIONAL INFORMATION www.forsyth.k12.ga.us/ctae or email vlowe@forsyth.k12.ga.us!

### CAREER DEVELOPMENT **OPPORTUNITIES FOR** PARTICIPATION

- · Certification/Curriculum Advice
- · Job Shadowing/Field Trips
- College & Career Fair Participation
- Internships
- Mentorships
- Mock Interviews
- Classroom Speaker
- Teacher Externships
- Advisory Council
- Facilities/Equipment Advice
- CTSO Support

Post Your Job

COLLEGE Career

- **Competitive Event Judging** •
- Awards/Recognition Support •
- **Career Transitions for Students** with Special Needs and/or At-Risk Students

Need part-time help and don't

know where to advertise?

Visit

job

### Junior Achievement

### 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:

ASSURANT <sup>®</sup>	€ AT&T	
Chick-fil-A Foundation	cisco.	
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UNG UNIVERSITY of NORTH GEORGIA		

(f) (IJ) (図) (▷) (im) georgia.ja.org I @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.







### To earn a CTAE medallion upon graduation, you must

- Complete three specific courses within your CTAE pathway
- Pass an End of Pathway Assessment/ Industry Recognized Credentialing Exam
- Remain an active member of a Career and Technical Education Student Organization (CTSO) for a minimum of two years
- Become an active member of the National Technical Honors Society (NTHS)

Maintain a 3.0 GPA

Complete a Community Service Project with CTAE

- Complete a minimum of two World Language courses
- Completion of a minimum of two Advanced Placement (AP), International Baccalaureate (IB), or Dual Enrollment (DE) courses

















Career Ready Diploma Seals are awarded to graduating high school students who complete a series of accomplishments as outlined and engage in activities, courses, and experiences that foster career readiness. The diploma seal is a signal to employers that a student is prepared to participate in the workforce.

### EMPLOYABILITY/SOFT SKILLS SEAL

**CAREER READY** 

Awarded to high school graduates who:

 Complete an Employability Skills/Soft Skills program approved by the local system and their business partners (GeorgiaBEST)

Distinguished Seal

Earn at least one unit in a state-approved Work-Based Learning

program in the concentrated CTAE pathway area

· Complete the requirements above

AND

Complete a Career, Technical and Agricultural Education (CTAE)
pathway in at least one of Georgia's 17 Career Clusters

SKILLS SEAL

Awarded to high school graduates who:

lome

### AND ONE (1) OF THE FOLLOWING

- Pass an End of Pathway Assessment (EOPA)/Industry Recognized Credentialing exam (if it applies)
- Complete a pathway in an industry-certified program
   Earn at least one unit in a state-approved Work-Based Learning
   program in the concentrated pathway area
- program in the concentrated pathway area • Complete all components of the Career-Related Capstone Project
- in the concentrated pathway area, as outlined by the Ga DOE • Earn a rank of E-5 or above in a JROTC program
- Via dual enrollment complete two Technical Certificates of Credit (TCC) in one pathway, earning a Technical College Diploma, or earning an Associates Degree

### Distinguished Seal Awarded to his

Complete a Career, Technical and Agricultural Education (CTAE)
 pathway in one of Georgia's 17 Career Clusters

#### AND TWO (2) OF THE FOLLOWING

- Pass an End of Pathway Assessment (EOPA)/Industry Recognized Credentialing exam (if it applies)
- Complete a pathway in an industry-certified program
   Earn at least one unit in a state-approved Work-Based Learning
- program in the concentrated pathway area
- Complete all components of the Career-Related Capstone Project in the concentrated pathway area, as outlined by the Ga DOE
- Earn a rank of E-5 or above in a JROTC program

### LEADERSHIP SKILLS SEAL

Awarded to high school graduates who:

- Complete one year of membership in a state-recognized Career and Technical Student Organization (CTSO) or one year in a JROTC co-curricular activity
- Prepare a portfolio to include as a minimum, a cover letter, resume, and three letters of recommendation

#### AND ONE (1) OF THE FOLLOWING

- Present to business and industry, civic organizations, legislators, and/or local, state, or national board of education members on behalf of local CTAE, CTSOs, or JROTC
- Receive a regional, state, or national honor and/or recognition
   Participate in at least 40 hours of documented community
- service, and/or community service campaigns (i.e. March of Dimes) • Earn a rank of E-5 or above and at least 2 JROTC credits

### Distinguished Seal Awarded to I

 Complete two years of membership in a state-recognized Career and Technical Student Organization (CTSO) or two years in a JROTC co-curricular activity

- Present to business and industry, civic organizations, legislators, and/or local, state, or national board of education members on behalf of local CTAE, CTSOs, or JROTC
- Hold or previously held a leadership office at the local, regional, state or national level in a state-recognized CTSO during high school or a JROTC command or Staff position within the unit or JROTC co-curricular activity and earn a rank of E-7 or above
   Participate in at least 80 hours of documented community service, and/or community service campaigns (i.e. March of Dimes)





















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 **HOT** Careers to 2026!

<u>Associate Degree Programs</u> (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



### 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 c (title, prefix, & numb	-	University System of Georgia Equivalent	USG Area option if USG 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
		100011101	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
			Area D – Natural Sciences, Math, & Technology
Chemistry II (Intro)	CHEM 1152 CHEM 1152L	CHEM 1152 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 2105	ECON 2105	-
			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

# Forsyth County CTAE Delivers a Roadmap Toward Your Future



### **MILITARY SERVICE**

Through JROTC programs, Georgia students are offered citizenship development, service learning and leadership awareness activities that prepare them for the opportunities accompanying active duty enlistment, commissioned officer training and defense of our state and nation.

# FOUR-YEAR UNIVERSITY

Unified under the governing authority of the Board of Regents since 1931, the University System of Georgia is deeply connected to all 159 counties, providing a host of academic and outreach services through their 28 public higher education institutions, libraries, and archives.

### CAREER

There are numerous opportunities to do what you love while providing for yourself and your family, right in your own backyard. We're preparing Georgia's students for future successes in the careers of their choosing.

# REGISTERED APPRENTICESHIPS

Π

As the Georgia economy continues to grow and diversify, it is critical that business and industry-led, work-based training programs are supplied a sustainable pipeline of career-ready employees. Widely used around the world, apprenticeship programs are a key component of our global competitiveness.

# TECHNICAL

Recognized among the best technical college systems in the nation, the Technical College System of Georgia provides technical and adult education, business and industry training and community and economic development services through 22 member-colleges comprising 85 campuses.





Forsyth County Schools does not discriminate on the basis of race, color, religion, national origin, age, disability, or gender in employment decisions or educational programs and activities.