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

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

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

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

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

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

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

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

The information provided in the Career Planner is subject to change as updates and/or requirements become final from the Georgia Department of Education, Forsyth County School Board (policy), and/or other agencies such as the Georgia Student Finance Commission.
Career Pathways are state-approved career enhancement programs defined as a coherent, articulated sequence of rigorous academic and career-related courses starting in the ninth grade and leading to an associate degree, and/or an industry-recognized certificate or licensure, and/or a baccalaureate degree and beyond.

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

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

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

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

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

OVERVIEW OF CAREER CLUSTERS/PATHWAYS

• Georgia’s 17 Career Cluster/Pathways provide a structure for organizing and delivering quality Career, Technical and Agricultural Education (CTAE) programs.

• Modeled after the National Career Clusters configuration utilized by most of the United States, Georgia’s 17 Career Cluster/Pathways Model represents approximately 96 career pathways to help students navigate their way to greater success in college and career.

• As an organizing tool for curriculum design and instruction, the 17 Career Clusters provide essential knowledge and skills for the students’ career pathways.

• This model functions as a:
  - Useful guide in developing programs of study that bridge secondary and postsecondary curriculum.
  - Indicator of a range of career options for students’ graduation plans of study.
  - Method of allowing students to discover their interests and passions, empowering them to choose the educational pathway that may lead to success in high school, college and career.

• The 17 Career Cluster/Pathways encompass both secondary and postsecondary education and will strengthen and improve student transition from secondary to postsecondary education.
AGRICULTURE, FOOD AND NATURAL RESOURCES
Careers with common knowledge and skills related to production, processing, marketing, financing, distribution, and development of agricultural commodities and resources. These commodities include food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS
Careers with common knowledge and skills related to designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

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

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

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

Middle School Career Development
Career Awareness (Grade 6)
Career Discovery (Grade 7)
Career Management (Grade 8)

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

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

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

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

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

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

Middle School Marketing, Sales & Services
Basic Skills of Marketing (Grade 6)
Exploring Marketing Education (Grade 7)
Pathways in Marketing (Grade 8)

MIDDLE SCHOOL PERFORMANCE STANDARDS

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

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

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

<table>
<thead>
<tr>
<th>School</th>
<th>Pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESANA Middle School</td>
<td>Business Management &amp; Finance, Engineering &amp; Technology, Junior Achievement Entrepreneurship &amp; Financial Literacy, Marketing</td>
</tr>
<tr>
<td>LAKESIDE Middle School</td>
<td>Computer Science, Business Management &amp; Finance, Engineering &amp; Technology, Junior Achievement Entrepreneurship &amp; Financial Literacy</td>
</tr>
<tr>
<td>LIBERTY Middle School</td>
<td>Agriculture, A/V, Business Management &amp; Finance, Engineering &amp; Technology, Junior Achievement Entrepreneurship &amp; Financial Literacy</td>
</tr>
<tr>
<td>LITTLE MILL Middle School</td>
<td>Agriculture, Career Awareness, Engineering &amp; Technology, Junior Achievement Entrepreneurship &amp; Financial Literacy</td>
</tr>
<tr>
<td>NORTH FORSYTH Middle School</td>
<td>Agriculture, Engineering &amp; Technology, Food &amp; Nutrition, Junior Achievement Entrepreneurship &amp; Financial Literacy</td>
</tr>
<tr>
<td>OTWELL Middle School</td>
<td>A/V, Business Management &amp; Finance, Engineering &amp; Technology, Healthcare</td>
</tr>
<tr>
<td>PINEY GROVE Middle School</td>
<td>Engineering &amp; Technology, Junior Achievement Entrepreneurship &amp; Financial Literacy, Marketing</td>
</tr>
<tr>
<td>RIVERWATCH Middle School</td>
<td>Business Management &amp; Finance, Engineering &amp; Technology, Healthcare, Junior Achievement Entrepreneurship &amp; Financial Literacy</td>
</tr>
<tr>
<td>SOUTH FORSYTH Middle School</td>
<td>Business Management &amp; Finance, Engineering &amp; Technology, Healthcare</td>
</tr>
<tr>
<td>VICKERY CREEK Middle School</td>
<td>Business Management &amp; Finance, Career Exploration: STEAM, Engineering &amp; Technology</td>
</tr>
</tbody>
</table>

---

**Find Your Passion!**
### TABLE OF CONTENTS

- **Parents and Students** .................................................. 2
- **Forsyth County School District** ..................................... 3
- **What are Career Pathways?** ...................................... 4
- **Career Clusters** ......................................................... 5
- **Middle School Performance Standards** ...................... 6
- **Find Your Passion! Middle School Career Pathway Options** 7
- **Table of Contents** ...................................................... 8-12
- **Georgia’s Hot Careers to 2026** .................................. 13-14
- **Georgia’s STEM Careers to 2026** ............................. 15-16
- **CTAE Industry Certification** ....................................... 17-18
- **Nontraditional Occupations and Resources** ............... 19
- **CTAE Fourth Science Options** .................................. 20
- **CTAE Mock Interviews** ............................................. 21
- **GeorgiaBEST and Career Research** .......................... 22-23
- **Empoyer Summit Survey** .......................................... 24
- **Finding a Job Through Job Board** ............................. 25
- **College and Career Development** ............................. 26
- **Dual Enrollment** .................................................... 27
- **Workforce Forsyth** .................................................... 28
- **Forsyth County High School Career Pathways** .......... 29-33

### PATHWAYS

#### AGRICULTURE

- **AGRICULTURE LEADERSHIP IN ANIMAL PRODUCTION PATHWAY** .................................................. 34
  - Basic Agriculture Science
  - Animal Science Technology and Biotechnology
  - Agribusiness Management and Leadership

- **AGRICULTURE LEADERSHIP IN HORTICULTURE PATHWAY** .................................................. 35
  - Basic Agriculture Science and Technologies
  - General Horticulture and Plant Science
  - Agribusiness Management and Leadership

- **COMPANION ANIMAL SYSTEMS PATHWAY** .................................................. 36
  - Basic Agriculture Science
  - Animal Science and Biotechnology
  - Small Animal Care

- **ENVIRONMENTAL AGRICULTURE SYSTEMS PATHWAY** .................................................. 37
  - Basic Agriculture Science
  - Science and Stewardship
  - Sustainable Agriculture

- **LANDSCAPE MANAGEMENT SYSTEMS PATHWAY** .................................................. 38
  - Basic Agriculture Science
  - General Horticulture and Plant Science
  - Turf Production and Management

- **VETERINARY SCIENCE PATHWAY** .................................................. 39
  - Basic Agricultural Science
  - Animal Science and Biotechnology
  - Veterinary Science
### TABLE OF CONTENTS

#### ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio/Video Technology and Film</td>
<td>40</td>
</tr>
<tr>
<td>Animation and Digital Media</td>
<td>41</td>
</tr>
<tr>
<td>Graphic Design</td>
<td>42</td>
</tr>
</tbody>
</table>

#### BUSINESS MANAGEMENT AND ADMINISTRATION

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship</td>
<td>43</td>
</tr>
<tr>
<td>Human Resources Management</td>
<td>44</td>
</tr>
</tbody>
</table>

#### EDUCATION AND TRAINING

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching as a Profession</td>
<td>45</td>
</tr>
</tbody>
</table>

#### ENERGY

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Systems</td>
<td>46</td>
</tr>
</tbody>
</table>

#### FINANCE

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Accounting</td>
<td>47</td>
</tr>
<tr>
<td>Business Accounting</td>
<td>48</td>
</tr>
<tr>
<td>Financial Services</td>
<td>49</td>
</tr>
</tbody>
</table>
### TABLE OF CONTENTS

**GOVERNMENT AND PUBLIC ADMINISTRATION**

- **JROTC MARINES PATHWAY**
  - MCJROTC Leadership Education I/II
  - MCJROTC Leadership Education III/IV
  - MCJROTC Leadership Education V/VI
  - MCJROTC Leadership Education VII/VIII

**HEALTH SCIENCE**

- **BIOTECHNOLOGY RESEARCH AND DEVELOPMENT PATHWAY**
  - Introduction to Healthcare Science
  - Essentials of Biotechnology
  - Applications of Biotechnology
  - Biotechnology Internship/Independent Research

- **DIAGNOSTIC SERVICES - PHLEBOTOMY PATHWAY**
  - Introduction to Healthcare Science
  - Essentials of Healthcare
  - Diagnostics Phlebotomy

- **HEALTH INFORMATION TECHNOLOGY PATHWAY**
  - Introduction to Healthcare Science
  - Essentials of Healthcare Information Technology
  - Applications of Health Information Technology

- **THERAPEUTIC SERVICES - EMERGENCY MEDICAL RESPONDER PATHWAY**
  - Introduction to Healthcare Science
  - Essentials of Healthcare Science
  - Emergency Medical Responder

- **THERAPEUTIC SERVICES - SPORTS MEDICINE PATHWAY**
  - Introduction to Healthcare Science
  - Essentials of Healthcare
  - Sports Medicine

**HOSPITALITY AND TOURISM**

- **CULINARY ARTS PATHWAY**
  - Introduction to Culinary Arts
  - Culinary Arts I
  - Culinary Arts II

- **HOSPITALITY, RECREATIONAL AND TOURISM PATHWAY**
  - Marketing Principles
  - Hospitality, Recreation, and Tourism Essentials
  - Hospitality, Recreation, and Tourism Management

- **SPORTS AND ENTERTAINMENT MARKETING PATHWAY**
  - Marketing Principles
  - Introduction to Sports and Entertainment Marketing
  - Advanced Sports and Entertainment Marketing

**HUMAN SERVICES**

- **NUTRITION AND FOOD PATHWAY**
  - Food, Nutrition, and Wellness
  - Food for Life
  - Food Science

- **PERSONAL CARE SERVICES - COSMETOLOGY PATHWAY**
  - Introduction to Personal Care Services
  - Cosmetology Services II
  - Cosmetology Services III
## TABLE OF CONTENTS

### INFORMATION TECHNOLOGY

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPUTER SCIENCE PATHWAY</strong></td>
<td>61</td>
</tr>
<tr>
<td>Introduction to Digital Technology</td>
<td></td>
</tr>
<tr>
<td>Computer Science Principles or AP Computer Science Principles</td>
<td></td>
</tr>
<tr>
<td>AP Computer Science</td>
<td></td>
</tr>
<tr>
<td><strong>CYBERSECURITY PATHWAY</strong></td>
<td>62</td>
</tr>
<tr>
<td>Introduction to Digital Technology</td>
<td></td>
</tr>
<tr>
<td>Introduction of Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>Advanced Cybersecurity</td>
<td></td>
</tr>
<tr>
<td><strong>GAMING DESIGN PATHWAY</strong></td>
<td>63</td>
</tr>
<tr>
<td>Introduction to Digital Technology</td>
<td></td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td></td>
</tr>
<tr>
<td>Gaming Design: Animation and Simulation</td>
<td></td>
</tr>
<tr>
<td><strong>INTERNET OF THINGS PATHWAY</strong></td>
<td>64</td>
</tr>
<tr>
<td>Introduction to Digital Technology</td>
<td></td>
</tr>
<tr>
<td>Computer Science or Principles or AP Computer Science Principles</td>
<td></td>
</tr>
<tr>
<td>Embedded Computing</td>
<td></td>
</tr>
<tr>
<td><strong>PROGRAMMING PATHWAY</strong></td>
<td>65</td>
</tr>
<tr>
<td>Introduction to Digital Technology</td>
<td></td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td></td>
</tr>
<tr>
<td>Programming, Apps, Games and Society</td>
<td></td>
</tr>
<tr>
<td><strong>WEB DEVELOPMENT PATHWAY</strong></td>
<td>66</td>
</tr>
<tr>
<td>Introduction to Digital Technology</td>
<td></td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td></td>
</tr>
<tr>
<td>Web Development</td>
<td></td>
</tr>
</tbody>
</table>

### LAW, PUBLIC SAFETY, CORRECTIONS

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIREFIGHTING PATHWAY</strong></td>
<td>67</td>
</tr>
<tr>
<td>Introduction to Law, Public Safety, Corrections and Security</td>
<td></td>
</tr>
<tr>
<td>Essentials of Fire and Emergency Services</td>
<td></td>
</tr>
<tr>
<td>Applications of Firefighting</td>
<td></td>
</tr>
<tr>
<td><strong>LAW ENFORCEMENT PATHWAY</strong></td>
<td>68</td>
</tr>
<tr>
<td>Introduction to Law, Public Safety, Corrections and Security</td>
<td></td>
</tr>
<tr>
<td>Criminal Justice Essentials</td>
<td></td>
</tr>
<tr>
<td>Criminal Investigations</td>
<td></td>
</tr>
<tr>
<td><strong>LEGAL SERVICES/APPLICATIONS OF LAW PATHWAY</strong></td>
<td>69</td>
</tr>
<tr>
<td>Introduction to Law, Public Safety, Corrections and Security</td>
<td></td>
</tr>
<tr>
<td>Essentials of Legal Services</td>
<td></td>
</tr>
<tr>
<td>Applications of Law</td>
<td></td>
</tr>
</tbody>
</table>

### MANUFACTURING

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MANUFACTURING PATHWAY</strong></td>
<td>70</td>
</tr>
<tr>
<td>Introduction to Manufacturing and Materials Science</td>
<td></td>
</tr>
<tr>
<td>Robotics and Automated Systems</td>
<td></td>
</tr>
<tr>
<td>Production Enterprises</td>
<td></td>
</tr>
<tr>
<td><strong>MECHATRONICS PATHWAY</strong></td>
<td>71</td>
</tr>
<tr>
<td>Introduction to Mechatronics-DC Theory, Pneumatic Systems and PLC</td>
<td></td>
</tr>
<tr>
<td>AC Theory, Electrical Motors, and Hydraulic Systems</td>
<td></td>
</tr>
<tr>
<td>Semiconductors Mechanical Sys, and Pump and Piping Systems</td>
<td></td>
</tr>
</tbody>
</table>
# Table of Contents

## Marketing

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHION, MERCHANDISING AND RETAIL MANAGEMENT PATHWAY</td>
<td>72</td>
</tr>
<tr>
<td>MARKETING AND MANAGEMENT PATHWAY</td>
<td>73</td>
</tr>
<tr>
<td>COMMUNICATIONS AND PROMOTIONS PATHWAY</td>
<td>74</td>
</tr>
</tbody>
</table>

## STEM (Science, Technology, Engineering and Mathematics)

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINEERING AND TECHNOLOGY PATHWAY</td>
<td>75</td>
</tr>
</tbody>
</table>

## Transportation, Distribution and Logistics

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEROSPACE - AVIATION MAINTENANCE PATHWAY</td>
<td>76</td>
</tr>
<tr>
<td>AEROSPACE - FLIGHT OPERATIONS PATHWAY</td>
<td>77</td>
</tr>
<tr>
<td>DISTRIBUTION AND LOGISTICS PATHWAY</td>
<td>78</td>
</tr>
<tr>
<td>AUTOMOTIVE SERVICE TECHNOLOGY PATHWAY</td>
<td>79</td>
</tr>
</tbody>
</table>

## Specialties

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship Forsyth</td>
<td>80</td>
</tr>
<tr>
<td>Mentorship Forsyth</td>
<td>81</td>
</tr>
<tr>
<td>Career Development Partner</td>
<td>82</td>
</tr>
<tr>
<td>Dress for Success</td>
<td>83</td>
</tr>
<tr>
<td>Career and Technical Student Organizations (CTSO)</td>
<td>84-86</td>
</tr>
<tr>
<td>Junior Achievement Discovery Center</td>
<td>87</td>
</tr>
<tr>
<td>College and Career Fair</td>
<td>88</td>
</tr>
<tr>
<td>Alliance Academy for Innovation</td>
<td>89</td>
</tr>
<tr>
<td>University of North Georgia</td>
<td>90</td>
</tr>
<tr>
<td>Lanier Technical College</td>
<td>91-92</td>
</tr>
<tr>
<td>Find Your Passion! High School Career Pathway Options</td>
<td>93</td>
</tr>
</tbody>
</table>
# Georgia's Careers to 2026

The careers in this chart have it all!

<table>
<thead>
<tr>
<th>Skills and Abilities</th>
<th>Work Activities</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>advanced skills required</td>
<td>frequently found</td>
<td>Fast job growth</td>
</tr>
<tr>
<td>moderate skills required</td>
<td>occasionally found</td>
<td>Above average wages</td>
</tr>
</tbody>
</table>

**HOT Jobs** have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.

## Doctoral or Professional Degree

<table>
<thead>
<tr>
<th>Career</th>
<th>Skills and Abilities</th>
<th>Work Activities</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Therapists</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$86,800 410</td>
</tr>
<tr>
<td>Physicians &amp; Surgeons, All Other</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$224,200 440</td>
</tr>
<tr>
<td>Postsecondary Teachers, All Other</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$77,200 430</td>
</tr>
</tbody>
</table>

## Master's Degree

<table>
<thead>
<tr>
<th>Career</th>
<th>Skills and Abilities</th>
<th>Work Activities</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Administrators, Elem. &amp; Sec</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$94,600 730</td>
</tr>
<tr>
<td>Educational Guidance, School, &amp; Voc Counselors</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$35,300 1270</td>
</tr>
<tr>
<td>Health Services Social Workers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$61,200 590</td>
</tr>
<tr>
<td>Instructional Coordinators</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$57,600 700</td>
</tr>
<tr>
<td>Nurse Practitioners</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$101,500 420</td>
</tr>
<tr>
<td>Physicians Assistants</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$100,800 430</td>
</tr>
</tbody>
</table>

## Bachelor's Degree

<table>
<thead>
<tr>
<th>Career</th>
<th>Skills and Abilities</th>
<th>Work Activities</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountants &amp; Auditors</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$78,100 5230</td>
</tr>
<tr>
<td>Administrative Services Managers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$90,900 880</td>
</tr>
<tr>
<td>Airline Pilots, Conduct, &amp; Flight Engineer</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$92,300 830</td>
</tr>
<tr>
<td>Business Operations Specialists, All Other</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$72,800 5650</td>
</tr>
<tr>
<td>Chem Engineers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$70,200 880</td>
</tr>
<tr>
<td>Coaches and Scouts</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$67,400 770</td>
</tr>
<tr>
<td>Compliance Officers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$62,900 770</td>
</tr>
<tr>
<td>Computer &amp; Information Systems Managers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$138,800 1400</td>
</tr>
<tr>
<td>Computer Occupations, All Other</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$88,200 920</td>
</tr>
<tr>
<td>Construction Managers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$105,800 730</td>
</tr>
<tr>
<td>Cost Estimators</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$62,200 640</td>
</tr>
<tr>
<td>Elementary School Teachers, Ex Spec Ed</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$55,600 620</td>
</tr>
<tr>
<td>Financial Analysts</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$80,800 700</td>
</tr>
<tr>
<td>Financial Managers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$143,700 1740</td>
</tr>
<tr>
<td>Financial Specialists, All Other</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$77,900 440</td>
</tr>
<tr>
<td>General &amp; Operations Managers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$126,400 6910</td>
</tr>
<tr>
<td>Health Educators</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$77,100 460</td>
</tr>
<tr>
<td>Human Resources Managers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$122,400 460</td>
</tr>
<tr>
<td>Human Resources Specialists</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$61,200 1940</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$82,800 590</td>
</tr>
<tr>
<td>Kindergarten Teachers, Ex Spec Ed</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$53,300 740</td>
</tr>
<tr>
<td>Loan Officers</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>$76,900 790</td>
</tr>
</tbody>
</table>

Georgia’s Careers to 2026

The careers in this chart have it all!

### Bachelor’s degree continued

<table>
<thead>
<tr>
<th>Skills and Abilities</th>
<th>Work Activities</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td></td>
<td>Fast job growth, Above average wages, At least 400 expected annual job openings.</td>
</tr>
<tr>
<td>Management Analysts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Research Analysts &amp; Marketing Spec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical &amp; Health Services Managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle School Teachers, Exc. Spec. &amp; Career/Ed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Financial Advisors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool Directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Relations Specialists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registered Nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales Managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Testing &amp; Development Specialists</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Note:** This workforce product was funded by a grant awarded by the U.S. 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. Interest use by an organization and for personal use is not incumbent for non-commercial purposes is permissible. All other uses require the prior written consent of the copyright owner.

For more information, please contact Workforce Statistics & Economic Research at (404) 232-3875 • Fax (404) 232-3888

Email: Workforce_info@gdol.ga.gov
# Georgia's STEM Careers to 2026

## Science | Technology | Engineering | Mathematics

### Knowledge
- Understanding of principles and facts of subject matter
  - Full knowledge required
  - Some knowledge required

### Education
- Typical education needed to enter an occupation
- Jobs have faster than average growth, above the state annual average wage, and have at least 400 annual openings

### Life and Physical Science, Engineering, Mathematics, and Information Technology Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Entry Level</th>
<th>Mid Career</th>
<th>Experienced</th>
<th>Knowledge Needed</th>
<th>Annual Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$112,400</td>
</tr>
<tr>
<td>Civil Engineering Technicians</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$47,800</td>
</tr>
<tr>
<td>Civil Engineers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$50,200</td>
</tr>
<tr>
<td>Computer &amp; Information Systems Managers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$138,800</td>
</tr>
<tr>
<td>Computer Network Architects</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$187,200</td>
</tr>
<tr>
<td>Computer Network Support Specialists</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$73,100</td>
</tr>
<tr>
<td>Computer Occupations, All Other</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$86,200</td>
</tr>
<tr>
<td>Computer Systems Analysts</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$89,500</td>
</tr>
<tr>
<td>Computer User Support Specialists</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$94,200</td>
</tr>
<tr>
<td>Database Administrators</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$60,600</td>
</tr>
<tr>
<td>Electrical &amp; Electronics Engineering Techs</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$60,200</td>
</tr>
<tr>
<td>Electrical Engineers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$93,400</td>
</tr>
<tr>
<td>Electronics Engineers, Ex Research</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$93,700</td>
</tr>
<tr>
<td>Engineers, All Other</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$92,100</td>
</tr>
<tr>
<td>Environmental Engineers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$86,200</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$82,800</td>
</tr>
<tr>
<td>Information Security Analysts</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$91,000</td>
</tr>
<tr>
<td>Mechanical Engineers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$93,700</td>
</tr>
<tr>
<td>Medical Scientists, Ex Epidemiologists</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$64,000</td>
</tr>
<tr>
<td>Network &amp; Computer Systems Administrators</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$88,200</td>
</tr>
<tr>
<td>Operations Research Analysts</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$64,300</td>
</tr>
<tr>
<td>Sales Reps, Wholesale &amp; Maj &amp; Tech &amp; Scientific Products</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$88,000</td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$103,000</td>
</tr>
<tr>
<td>Software Developers, Systems Software</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$98,600</td>
</tr>
<tr>
<td>Statisticians</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$67,200</td>
</tr>
<tr>
<td>Surveying &amp; Mapping Technicians</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$41,100</td>
</tr>
<tr>
<td>Web Developers</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$76,300</td>
</tr>
</tbody>
</table>

## Health Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Entry Level</th>
<th>Mid Career</th>
<th>Experienced</th>
<th>Knowledge Needed</th>
<th>Annual Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygienists</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$66,100</td>
</tr>
<tr>
<td>Dentists, General</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$170,100</td>
</tr>
<tr>
<td>Diagnostic Medical Technologists</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$63,400</td>
</tr>
<tr>
<td>Emergency Medical Technicians &amp; Paramedics</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$33,400</td>
</tr>
<tr>
<td>Family &amp; General Practitioners</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$243,800</td>
</tr>
<tr>
<td>Health Diagnosing &amp; Treating Practitioners, All Other</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>$108,500</td>
</tr>
</tbody>
</table>

For more information, visit [Georgia Department of Labor](https://explorer.gdol.ga.gov/gsipub/index.asp?docid=356)

Equal Opportunity Employer/Program • Auxiliary Aids and Services Available upon Request to Individuals with Disabilities
# FORSYTH COUNTY SCHOOLS 2019-2020 Career Planner

## GEORGIA’S STEM Careers to 2026

Science | Technology | Engineering | Mathematics
---|---|---|---

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Education</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of principles and facts of subject matter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Full knowledge required | | |
- Some knowledge required | | |

**Education**
- Typical education needed to enter an occupation
- Jobs have faster than state annual average job growth, above the data annual average wages, and have at least 400 annual openings.

**Health Occupations Continued**

<table>
<thead>
<tr>
<th>Health Occupations</th>
<th>Knowledge</th>
<th>Education</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Technologists &amp; Technicians, All Other</td>
<td></td>
<td></td>
<td>$42,200</td>
</tr>
<tr>
<td>Internists, General</td>
<td></td>
<td></td>
<td>$135,200</td>
</tr>
<tr>
<td>Licensed Practical &amp; Licensed Vocational Nurses</td>
<td></td>
<td></td>
<td>$46,700</td>
</tr>
<tr>
<td>Medical &amp; Clinical Laboratory Technicians</td>
<td></td>
<td></td>
<td>$36,700</td>
</tr>
<tr>
<td>Medical &amp; Clinical Laboratory Technologists</td>
<td></td>
<td></td>
<td>$58,600</td>
</tr>
<tr>
<td>Medical Records &amp; Health Information Technicians</td>
<td></td>
<td></td>
<td>$38,300</td>
</tr>
<tr>
<td>Nurse Practitioners</td>
<td></td>
<td></td>
<td>$103,900</td>
</tr>
<tr>
<td>Nursing Instructors &amp; Teachers, Postsecondary</td>
<td></td>
<td></td>
<td>$65,400</td>
</tr>
<tr>
<td>Occupational Therapists</td>
<td></td>
<td></td>
<td>$83,100</td>
</tr>
<tr>
<td>Pharmacists</td>
<td></td>
<td></td>
<td>$117,600</td>
</tr>
<tr>
<td>Pharmacy Technicians</td>
<td></td>
<td></td>
<td>$29,400</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td></td>
<td></td>
<td>$86,800</td>
</tr>
<tr>
<td>Physician Assistants</td>
<td></td>
<td></td>
<td>$100,500</td>
</tr>
<tr>
<td>Physicians &amp; Surgeons, All Other</td>
<td></td>
<td></td>
<td>$124,200</td>
</tr>
<tr>
<td>Radiologic Technologists</td>
<td></td>
<td></td>
<td>$52,800</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td></td>
<td></td>
<td>$62,800</td>
</tr>
<tr>
<td>Respiratory Therapists</td>
<td></td>
<td></td>
<td>$65,200</td>
</tr>
<tr>
<td>Speech-Language Pathologists</td>
<td></td>
<td></td>
<td>$74,100</td>
</tr>
<tr>
<td>Surgical Technologists</td>
<td></td>
<td></td>
<td>$41,900</td>
</tr>
<tr>
<td>Veterinarians</td>
<td></td>
<td></td>
<td>$86,900</td>
</tr>
<tr>
<td>Veterinary Technologists &amp; Technicians</td>
<td></td>
<td></td>
<td>$53,300</td>
</tr>
</tbody>
</table>

**Architecture Occupations**

<table>
<thead>
<tr>
<th>Architecture Occupations</th>
<th>Knowledge</th>
<th>Education</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architects, Ex-Landscape &amp; Naval</td>
<td></td>
<td></td>
<td>$98,300</td>
</tr>
<tr>
<td>Architectural &amp; Civil Drafters</td>
<td></td>
<td></td>
<td>$83,800</td>
</tr>
<tr>
<td>Architectural &amp; Engineering Managers</td>
<td></td>
<td></td>
<td>$138,100</td>
</tr>
<tr>
<td>Landscape Architects</td>
<td></td>
<td></td>
<td>$71,300</td>
</tr>
</tbody>
</table>

**Social Science Occupations**

<table>
<thead>
<tr>
<th>Social Science Occupations</th>
<th>Knowledge</th>
<th>Education</th>
<th>Occupational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical, Counseling, &amp; School Psychologists</td>
<td></td>
<td></td>
<td>$83,900</td>
</tr>
<tr>
<td>Economists</td>
<td></td>
<td></td>
<td>$105,100</td>
</tr>
<tr>
<td>Political Science Teachers, Postsecondary</td>
<td></td>
<td></td>
<td>$76,400</td>
</tr>
<tr>
<td>Psychology Teachers, Postsecondary</td>
<td></td>
<td></td>
<td>$68,700</td>
</tr>
<tr>
<td>Social Science Research Assistants</td>
<td></td>
<td></td>
<td>$46,400</td>
</tr>
<tr>
<td>Social Scientists &amp; Related Workers, All Other</td>
<td></td>
<td></td>
<td>$68,000</td>
</tr>
<tr>
<td>Urban &amp; Regional Planners</td>
<td></td>
<td></td>
<td>$56,800</td>
</tr>
</tbody>
</table>

**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. The product is copyrighted by the restriction that created it, internal use by an organization and other personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.


For more Information, contact Workforce Statistics & Economic Research (W&ER) at (404) 232-3873 or at workforce_info@gdol.ga.gov
CTAE INDUSTRY CERTIFICATION INITIATIVE

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

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

This formal process strengthens all program components, including:

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

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

INDUSTRY CERTIFIED PROGRAMS IN FORSYTH COUNTY

Automotive Service Technology (Certified by NATEF):
- Forsyth Central High School

A/V, Technology, and Film (Certified by MEFGA):
- North Forsyth High School
- West Forsyth High School

Business and Computer Science (Certified by SHRM):
- Lambert High School
- North Forsyth High School
- South Forsyth High School
- West Forsyth High School

Culinary Arts (Certified by ACFEF):
- Lambert High School
- South Forsyth High School
- West Forsyth High School

Engineering (Certified by ITEGA):
- Forsyth Central High School
- Lambert High School
- North Forsyth High School
- South Forsyth High School
- West Forsyth High School

Healthcare Science (Certified by HomeTown Health):
- Lambert High School
- North Forsyth High School

Marketing (Certified by AMA):
- Forsyth Central High School
- Lambert High School
- North Forsyth High School
- South Forsyth High School
- West Forsyth High School

FY20 Industry Certification Process:
- Automotive Service Technology (Re-certification)

FY21 Industry Certification Process:
- A/V, Technology, and Film
- Business and Computer Science
- Nutrition and Food Science
HOW DO STUDENTS BENEFIT?

- The student is ensured participation in a program that has been carefully interfaced with current industry standards thus helping to increase their qualifications toward successful employment.

- The curriculum and the delivery method for that curriculum taught to students are improved and updated enabling the student to receive high quality instruction.

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

- The school is viewed as having exceptional programs. Through the industry certification process, schools are better able to align curriculum with recognized standards to aid with providing better career opportunities for students.

- Communities understand that schools which pursue this distinction are committed to improving student preparation and ensuring that Georgia’s workforce meets the demands of the 21st century.

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

- It represents that they will receive qualified students who will make productive employees.

- It represents that they have had meaningful involvement in public education and have contributed to the development of a highly-skilled, future workforce for Georgia.
NONTRADITIONAL OCCUPATIONS

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

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

LOCAL EDUCATION AGENCY ACCOUNTABILITY

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

CTAE PROGRAM REVIEWS

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

METHODS OF ADMINISTRATION (MOA) COMPLIANCE REVIEWS

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

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

NONTRADITIONAL OCCUPATIONS AND RESOURCES

CAREER PLANNING RESOURCES

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

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

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

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

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

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CTAE PATHWAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate and Alternative Energy Technologies</td>
<td>Energy</td>
</tr>
<tr>
<td>Energy and Power Technologies</td>
<td>Energy</td>
</tr>
<tr>
<td>Applications of Biotechnology</td>
<td>Health Science</td>
</tr>
<tr>
<td>Essentials of Biotechnology</td>
<td>Health Science</td>
</tr>
<tr>
<td>Essentials of Healthcare</td>
<td>Health Science</td>
</tr>
<tr>
<td>Sports Medicine</td>
<td>Health Science</td>
</tr>
<tr>
<td>Food for Life</td>
<td>Human Services</td>
</tr>
<tr>
<td>Food Science</td>
<td>Human Services</td>
</tr>
<tr>
<td>Forest Science</td>
<td>Agriculture, Food and Natural Resources</td>
</tr>
<tr>
<td>General Horticulture and Plant Science</td>
<td>Agriculture, Food and Natural Resources</td>
</tr>
<tr>
<td>Natural Resources Management</td>
<td>Agriculture, Food and Natural Resources</td>
</tr>
<tr>
<td>Animal Science Technology/Biotechnology</td>
<td>Agriculture, Food and Natural Resources</td>
</tr>
<tr>
<td>Plant Science and Biotechnology</td>
<td>Agriculture, Food and Natural Resources</td>
</tr>
<tr>
<td>Advanced AC and DC Circuits</td>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
</tr>
<tr>
<td>Advanced Placement Computer Science</td>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
</tr>
<tr>
<td>International Baccalaureate Computer Science, Year One</td>
<td>Information Technology</td>
</tr>
<tr>
<td>International Baccalaureate Computer Science, Year Two</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Advanced Placement Computer Science Principles</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Programming, Games, Apps and Society</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Web Development</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Embedded Computing</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Game Design: Animation and Simulation</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Forensic Science and Criminal Investigations</td>
<td>Law, Public Safety, Corrections and Security</td>
</tr>
</tbody>
</table>
All CTAE students enrolled in a third-year career pathway course or work-based learning during the school year will participate in organizational ethics and soft skills training. Through a sequence of activities during the school year, students will spend time developing personal philosophies around employability standards and the job-search process, with the Mock Interview Week as the culminating activity at their high school. Over 2,000 students will participate in this experience during the school year!

Mock interviews will expose each student to the interview portion of the job search process, as well as provide feedback on the development of resumes and other career-related documents. This event will be community-driven, as volunteers from across the county spend time creating an experience that will help students learn what is expected in a job interview, while also providing constructive feedback on all aspects of 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
Students who successfully complete the requirements of this intense focus will receive GeorgiaBEST (Business Ethics Student Training) certification awarded by the Georgia Department of Labor. Georgia businesses and hiring managers are recognizing the importance of GeorgiaBEST and understand that these students have gone above and beyond to prepare themselves for the workplace.

DEFINITIONS AND DESCRIPTIONS

PERSONAL CHARACTERISTICS

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

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

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

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

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

**CAREER PLANNING RESOURCES**

- [www.georgiarcn.org](http://www.georgiarcn.org)
  Georgia Career Resource Network is a web site designed to assist counselors, instructors, and administrators with career-related programs, initiatives, and information.

- [www.gafutures.org](http://www.gafutures.org)
  GAfutures is an internet site for planning, paying, and applying for college.

- [www.careervoyages.gov](http://www.careervoyages.gov)
  Career Voyage is a national web-site for emerging industries and high demand occupations.

- [www.bls.gov/oco/](http://www.bls.gov/oco/)
  The Occupational Outlook Handbook is a nationally recognized source of career information. It describes what workers do on the job, working conditions, the training and education needed, earnings, and expected job prospects. The handbook covers a wide range of occupations.

- [www.myplan.com](http://www.myplan.com)
  MyPlan.com is a career database which allows visitors to search, browse or query through over 900 different careers, read career profiles, job descriptions, and educational requirements, and explore career outlooks.
INTERACTIONS WITH OTHERS

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

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

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

**EMPLOYER EXPECTATIONS**

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

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

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

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

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

**Adherence to Policy:** The ability to follow company rules, regulations, procedures, and directions especially those related to safety; display good workplace habits; keep assigned area neat and orderly; the ability to maintain equipment to ensure longevity and efficiency; determine causes of operating errors or equipment issues and decide what to do about it; take proactive measures to address unsafe practices or behaviors.
WE SURVEYED 770 EMPLOYERS IN GEORGIA ABOUT SOFT SKILLS. THEY PROVIDED THE FOLLOWING FEEDBACK...

What is your employee turnover rate?

- < 5%: 28%
- 5% - 10%: [Graph]
- 11% - 20%: [Graph]
- > 20%: [Graph]

To what do you attribute your turnover rate?

- LACK OF:
  - Work Ethic/Soft Skills: 42%
  - Technical Skills: [Graph]
  - Work Schedules/Shifts: [Graph]
  - Pay/Benefits: [Graph]

85% of the surveyed employers said SOFT SKILLS or WORK ETHICS were an issue at their company.

The issues of most concern are:

- ATTENDANCE & PUNCTUALITY
- DISCIPLINE & CHARACTER
- ATTITUDE & RESPECT
- MOBILE DEVICE USAGE

A WHOPPING 87% OF EMPLOYERS SAID CREATIVE THINKING & PROBLEM SOLVING SKILLS WERE OF MORE CONCERN THAN BASIC...

- Math Skills
- Reading Skills
- Locating Information Skills

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

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

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

- GeorgiaBEST@School
- GeorgiaBEST@Work
- GeorgiaBEST@Home

CONNECT:

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

DISCLAIMER: FCS Job Posting Board acts only as a posting service and makes no particular recommendations regarding employers or students applying for jobs. We make no representations or guarantees about positions listed by the employer, nor 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, nor 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.
Forsyth County Schools offers a variety of career pathways that meet the demands of the modern workplace by equipping students for college and career. Areas include:

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

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 opportunities 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 opportunities 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 postsecondary 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 opportunities posted at district high schools.
To be eligible for the Dual Enrollment program, a student must:

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

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

School counselors have Dual Enrollment information and this link is also helpful:
https://www.GAfutures.org/Financial_Aid_Planning/Scholarships/Grants_and_Scholarships/Accel_Program.aspx

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

INFORMATION NIGHTS FOR 2020-21 ENROLLMENT

UNIVERSITY OF NORTH GEORGIA
December 3, 2019 at 6PM
December 5, 2019 at 6PM
Cumming Campus
300 Aquatic Circle, Cumming, GA 30040
470-239-3100

LANIER TECHNICAL COLLEGE
December 11, 2019 at 6PM
Forsyth Campus
3410 Ronald Reagan Blvd
Cumming, GA 30041
678-341-6633
In 2014, Forsyth County Schools (FCS), in partnership with the Forsyth County Chamber, Lanier Technical College, and the University of North Georgia, launched Workforce Forsyth, a community initiative focused on developing strategies to support Career, Technical, and Agricultural Education (CTAE) in the district. Key next steps for the partnership focused on aligning career education efforts, guiding pathway creation, expanding classroom participation, and enriching curricula.

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

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>Workforce Forsyth 2.0 Priorities</th>
<th>Short-Term Strategies</th>
<th>Long-Term Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Priority 1</strong></td>
<td>Marketing &amp; Outreach Plan</td>
<td>- Engage with current and potential stakeholders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Host a stakeholder showcase</td>
</tr>
<tr>
<td><strong>Priority 2</strong></td>
<td>Build &amp; Evaluate a Soft Skills Program</td>
<td>- Establish a district-wide Soft Skills Committee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Explore introducing soft-skills in earlier grades</td>
</tr>
<tr>
<td><strong>Priority 3</strong></td>
<td>Build Leadership Capacity for All Students</td>
<td>- Engage more students in CTSOs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Redefine the role of the counseling staff</td>
</tr>
<tr>
<td><strong>Priority 4</strong></td>
<td>Grow Partnerships</td>
<td>- Update and evaluate existing business partnerships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Leverage business partnerships to increase teacher externship opportunities</td>
</tr>
</tbody>
</table>
AGRICULTURE CLUSTER

✓ Agriculture Leadership in Animal Production Pathway (N)
  Basic Agriculture Science
  Animal Science Technology/Biotechnology
  Agribusiness Management and Leadership*
  Internship Forsyth or Mentorship Forsyth

✓ Agriculture Leadership in Horticulture Pathway (N)
  Basic Agriculture Science
  General Horticulture and Plant Science
  Agribusiness Management and Leadership*
  Internship Forsyth or Mentorship Forsyth

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

✓ Environmental Agriculture Systems Pathway (N)
  Basic Agriculture Science
  Environmental Science and Stewardship
  Sustainable Agriculture*
  Internship Forsyth or Mentorship Forsyth

✓ Landscape Management Systems Pathway (S)
  Basic Agriculture Science
  General Horticulture and Plant Science
  Turf Production and Management*
  Internship Forsyth or Mentorship Forsyth

✓ Veterinary Science Pathway (C, D)
  Basic Agriculture Science
  Animal Science and Biotechnology
  Veterinary Science*
  Internship Forsyth or Mentorship Forsyth

ARTS, A/V TECHNOLOGY, AND COMMUNICATIONS CLUSTER

✓ Audio-Video Technology and Film Pathway (C, L, N, S, W)
  Audio & Video Technology & Film
  Audio & Video Technology & Film II
  Audio & Video Technology & Film III*
  Internship Forsyth or Mentorship Forsyth

✓ Animation and Digital Media Pathway (N)
  Introduction to Digital Media
  Principles and Concepts of Animation
  Advanced Animation, Game, and app Design*
  Internship Forsyth or Mentorship Forsyth

✓ Graphic Design Pathway (A)
  Introduction to Graphics and Design
  Graphic Design and Production
  Advanced Graphic Design*
  Internship Forsyth or Mentorship Forsyth

BUSINESS, MANAGEMENT, & ADMINISTRATION CLUSTER

✓ Entrepreneurship Pathway (D, FA, L, S)
  Introduction to Business and Technology
  Legal Environment of Business
  Entrepreneurship*
  Internship Forsyth or Mentorship Forsyth

✓ Human Resources Management Pathway (FA, S)
  Introduction to Business and Technology
  Legal Environment of Business
  Human Resources Principles*
  Internship Forsyth or Mentorship Forsyth
High School Career Pathways

2019-20

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

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

FINANCE CLUSTER
✓ Advanced Accounting Pathway (L)
  Introduction to Business and Technology
  Principles of Accounting I*
  Internship Forsyth or Mentorship Forsyth

✓ Business Accounting Pathway (FV, L, S)
  Introduction to Business and Technology
  Financial Literacy
  Principles of Accounting I*
  Internship Forsyth or Mentorship Forsyth

✓ Financial Services Pathway (D, FV, L, S)
  Introduction to Business and Technology
  Banking, Investing and Insurance*
  Internship Forsyth or Mentorship Forsyth

GOVT & PUBLIC ADMIN CLUSTER
✓ JROTC Pathway - Marines (N)
  MCJROTC Leadership Education III/IV
  MCJROTC Leadership Education V/VI
  MCJROTC Leadership Education VII/VIII

HEALTH SCIENCE CLUSTER
✓ Biotechnology Research & Development Pathway (C/STEM, L)
  Introduction to Healthcare Science
  Essentials of Biotechnology
  Applications of Biotechnology*
  Internship Forsyth or Mentorship Forsyth

✓ Diagnostic Services – Phlebotomy Pathway (L)
  Introduction to Healthcare Science
  Essentials of Healthcare
  Diagnostics Phlebotomy*
  Internship Forsyth or Mentorship Forsyth

✓ Emergency Medical Responder Pathway (A)
  Introduction to Healthcare Science
  Essentials of Healthcare
  Emergency Medical Responder*
  Internship Forsyth or Mentorship Forsyth

✓ Health Information Technology Pathway (A)
  Introduction to Healthcare Science
  Essentials of Health Information Technology
  Applications of Health Information Technology*
  Internship Forsyth or Mentorship Forsyth

✓ Therapeutic Services – Sports Medicine Pathway (N)
  Introduction to Healthcare Science
  Essentials of Healthcare
  Sports Medicine*
  Internship Forsyth or Mentorship Forsyth

HOSPITALITY AND TOURISM CLUSTER
✓ Culinary Arts Pathway (D, L, S, W)
  Introduction to Culinary Arts
  Culinary Arts I
  Culinary Arts II*
  Internship Forsyth or Mentorship Forsyth
High School Career Pathways

2019-20

✓ Hospitality, Recreation and Tourism Pathway (A)
  Marketing Principles
  Hospitality, Recreation and Tourism Essentials
  Hospitality, Recreation and Tourism Management*
  Internship Forsyth or Mentorship Forsyth

✓ Sports and Entertainment Marketing Pathway
  (C, D, FV, L, N, S, W)
  Marketing Principles
  Introduction to Sports & Entertainment Marketing
  Advanced Sports & Entertainment Marketing*
  Internship Forsyth or Mentorship Forsyth

HUMAN SERVICES CLUSTER
✓ Personal Care Services – Cosmetology Pathway (C, W)
  Introduction to Personal Care Services
  Cosmetology Services II
  Cosmetology Services III*
  Internship Forsyth or Mentorship Forsyth

✓ Food and Nutrition Pathway (C, L, N, W)
  Food, Nutrition & Wellness
  Food for Life
  Food Science*
  Internship Forsyth or Mentorship Forsyth

INFORMATION TECHNOLOGY CLUSTER
✓ Computer Science Pathway (C, D, FV, L, N, S, W)
  Introduction to Digital Technology
  Computer Science Principles or AP Computer Science Principles
  AP Computer Science*
  Internship Forsyth or Mentorship Forsyth

✓ Cybersecurity Pathway (A)
  Introduction to Digital Technology
  Introduction to Cybersecurity
  Advanced Cybersecurity*
  Internship Forsyth or Mentorship Forsyth

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

✓ Internet of Things Pathway (N)
  Introduction to Digital Technology
  Computer Science Principles or AP Computer Science Principles
  Embedded Computing*
  Internship Forsyth or Mentorship Forsyth

✓ Programming Pathway (L, S)
  Introduction to Digital Technology
  Computer Science Principles
  Programming, Games, Apps, and Society*
  Internship Forsyth or Mentorship Forsyth

✓ Web Development Pathway (D, FV, N, W)
  Introduction to Digital Technology
  Computer Science Principles
  Web Development*
  Internship Forsyth or Mentorship Forsyth

LAW, PUBLIC SAFETY, CORRECTIONS &
SECURITY CLUSTER
✓ Firefighting Pathway (A)
  Introduction to Law, Public Safety, Corrections and Security Essentials of Fire and Emergency Services
  Applications of Firefighting*
  Internship Forsyth or Mentorship Forsyth

✓ Law Enforcement/Criminal Investigations Pathway (A)
  Introduction to Law, Public Safety, Corrections and Security
  Criminal Justice Essentials
  Criminal Investigations*
  Internship Forsyth or Mentorship Forsyth
High School Career Pathways

2019-20

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

MANUFACTURING CLUSTER

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

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

MARKETING CLUSTER

✓ Fashion, Merchandising and Retail Management Pathway (D, L, S, W)
  Marketing Principles
  Fashion, Merchandising, and Retailing Essentials
  Advanced Fashion, Merchandising, and Retailing*
  Internship Forsyth or Mentorship Forsyth

✓ Marketing Communications and Promotions Pathway (C, S)
  Marketing Principles
  Promotion and Professional Sales
  Marketing Communications Essentials*
  Internship Forsyth or Mentorship Forsyth

✓ Marketing & Management Pathway (C, D, FA, FV, L, N, S, W)
  Marketing Principles
  Marketing and Entrepreneurship
  Marketing Management*
  Internship Forsyth or Mentorship Forsyth

STEM – SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS CLUSTER

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

TRANSPORTATION, DISTRIBUTION, & LOGISTICS CLUSTER

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

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

✓ Distribution & Logistics (A)
  Logistics Fundamentals
  Logistics Operations
  Materials Management*
  Internship Forsyth or Mentorship Forsyth
TRANSPORTATION, DISTRIBUTION, & LOGISTICS

CLUSTER

✓ Aerospace – Aviation Maintenance (A)
  Fundamentals of Aerospace
  Aviation Maintenance I
  Aviation Maintenance II
  Internship Forsyth or Mentorship Forsyth

✓ Aerospace – Flight Operations (A)
  Fundamentals of Aerospace
  Flight Operations I
  Flight Operations II
  Internship Forsyth or Mentorship Forsyth

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

✓ Automotive Technology Pathway (C)
  General Automotive Technology 1
  General Automotive Technology 2
  General Automotive Technology 3
  Advanced Automotive Technology 4
  Advanced Automotive Technology 5
  Advanced Automotive Technology 6
  Automotive Service Technology Internship 1
  Automotive Service Technology Internship 2
  Automotive Service Technology Internship 3

CAREER-RELATED DUAL ENROLLMENT OPTIONS

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

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Associates in Science
- Business Management

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FFA

TOP CAREERS CHOICES
Agricultural Inspectors
- $40,900 annual salary
- Bachelor’s Degree
- 20 annual average openings in Georgia

Animal Scientists
- $73,400 annual salary
- Bachelor’s Degree
- 1 annual average openings in Georgia

First-Line Supervisors of Animal Husbandry and Animal Care Workers
- $45,200 annual salary
- High School Diploma
- 40 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
Agricultural Inspectors
Agricultural Managers
Agricultural Science Postsecondary Teachers
Agricultural Technicians
Butchers and Meat Cutters
Buyers and Purchasing Agents
Chemical Farm and Ranch Managers
Food Cooking Machine Operators
Graders and Sorters
Slaughters and Meat Packers
Technicians

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Associates in Science
- Business Management
- Horticulture Technology
COLLEGES/UNIVERSITIES
- Bachelor of Science, Agricultural Business
- Bachelor of Science, Agricultural Education
- Bachelor of Science, Plant Science
- Master and PhD in all areas

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FFA

TOP CAREERS CHOICES
- Interior-Scape Designers
  $65,000-$70,000 annual salary
  B.S. Degree or higher
- Landscape Designers
  $42,000-$75,000 annual salary
  No degree required. B.S. recommended
- Garden Center Owner/Operator
  Salaries vary based on scope of business
  No degree required.
- Golf Course Manager/Athletic Field Manager
  $64,000-$84,000 annual salary
  Bachelors Degree

ADDITIONAL CAREER CHOICES
- Chemical, Equipment, Plants or Seed Sales
- Commercial Landscape Designers
- Cooperative Extension Agent
- Farmer
- Fruit and Orchard Production
- Garden Writers
- Greenhouse
- Horticulture Teacher
- Irrigation System Design and Installation
- Landscape, Nursery, Orchard, Vegetable Farm
- Marketing for Gardens or Green Industry
- Organic Vegetable Production
- Park Design and Maintenance
- Production Marketing
- Public and Private Garden Curators
- Public Gardens
- Public Relations
- Sod Production and Sales
- Research Scientist or Plant Breeding
- Wetland Reclamation
- Zoo or City Government Horticulturist

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

**PATHWAY COURSES**
- Basic Agriculture Science
- Animal Science and Biotechnology
- Small Animal Care

**RECOMMENDED COURSES**
- Biology
- Business Management
- Computer Applications
- Economics
- Environmental Science

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

**TECHNICAL COLLEGES**
- Associates in Science

**COLLEGES/UNIVERSITIES**
- Bachelor of Science, Agricultural Business
- Bachelor of Science, Agricultural Education
- Bachelor of Science, Animal Science
- Master and PHD in all areas

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- FFA

**TOP CAREERS CHOICES**

**Nonfarm Animal Caretakers**
- High School Diploma
- $19,100 annual salary
- 160 annual average openings in Georgia

**Veterinarians**
- Professional Degree
- $76,600 annual salary
- 10 annual average openings in Georgia

**Veterinary Assistants**
- High School Diploma
- $21,700 annual salary

**ADDITIONAL CAREER CHOICES**
- Agricultural Animals
- Agricultural Inspectors
- Agriculture Teachers
- Animal Breeders
- Animal Care and Service Workers
- Animal Scientists
- Biological Technicians
- Nonfarm Animal Caretakers
- Ranch Managers
- Veterinarians
- Veterinary Assistants
- Veterinary Technicians

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

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

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FFA

TOP CAREERS CHOICES

Agricultural Science Professor
- $69,300 annual salary
- Bachelor’s Degree
- 450 annual average openings in Georgia

Agricultural Science Professor
- $96,000 average annual salary
- Advanced Degree

Conservation Scientist
- $65,130 average annual salary
- BS Degree

Environmental Engineer
- $86,000 average annual salary
- BS Degree

Farmers/Ranchers/Agricultural Managers
- $67,000 average annual salary
- Associate Degree or Higher

Park Naturalist
- $50,000-$65,000 annual salary
- Associate Degree

ADDITIONAL CAREER CHOICES
- Agricultural Chemist
- Agriculture Policymaker
- Agriculture Technician
- Environmental Economist
- Food Scientist
- Greenhouse Technician
- Natural Resource Manager

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

PATHWAY COURSES
- Basic Agriculture Science
- General Horticulture and Plant Science
- Turf Production and Management

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

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

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FFA

TOP CAREERS CHOICES

Agricultural Science Professor
$96,000 average annual salary
Advanced Degree

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

Forest Nursery Supervisor
$57,000 average annual salary
Bachelor’s Degree

Golf Course Management
$45,000 - $90,000 annual salary
Bachelor’s Degree

Landscape Architect
$63,000 average annual salary
Bachelor’s Degree

Landscape and Nursery Worker
$30,000 average annual salary
High School Diploma

ADDITIONAL CAREER CHOICES

Agriculture Policymaker
Agriculture Technician
Construction Manager
Environmental Compliance Inspector
Estate Caretaker
Greenhouse Technician
Master Gardener
Natural Resource Manager
Pesticide Handler

Source: GADOE Plans of Study
The agriculture education courses in veterinary science cover the basics of animal care. Topics covered include disease, parasites, feeding, shelter, grooming, and general animal care. College preparatory students benefit from the course as an elective if they plan to enter college and pursue a degree in the veterinary profession. This course allows students entering the workforce after graduating high school to develop entry-level skills to become employed and to continue their education on the job.

**PATHWAY COURSES**
- Basic Agricultural Science
- Animal Science and Biotechnology
- Veterinary Science

**RECOMMENDED COURSES**
- Biology
- Business Management
- Computer Applications
- Economics
- Environmental Science

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

**TECHNICAL COLLEGES**
- Associates in Science

**COLLEGES/UNIVERSITIES**
- Bachelor of Science, Agricultural Education
- Bachelor of Science, Agricultural Science
- Bachelor of Science, Animal Science
- Master and PhD in all areas

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- FFA

**TOP CAREERS CHOICES**

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

**Veterinarian**
- Doctoral or Professional Degree
- $82,040 per year starting salary

**Veterinary Tech**
- Doctoral or Professional Degree
- $82,040 per year starting salary

**ADDITIONAL CAREER CHOICES**

- Animal Welfare Specialist
- Animal Care Specialist
- Animal Sales
- Artificial Insemination Technician
- Breed Analyst
- Breed Association Sales/Promotion
- Cell Culture Specialist
- Companion Animal Breeder
- Companion Animal Nutrition Specialist
- Companion Animal Store Manager
- Companion Animal Therapy Specialist
- Communication and Media Specialist
- Dairy Unit Herdsman/Manager
- Embryo Transfer Technician
- Equipment Sales Representative
- Equitation Instructor
- Extension Educator

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

PATHWAY COURSES
- Audio and Video Technology and Film I
- Audio and Video Technology and Film II
- Audio and Video Technology and Film III

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Technical Studies
- Telecommunications Arts
- Georgia Film Academy
COLLEGES/UNIVERSITIES
- Broadcast Design
- Journalism and Broadcasting
- Mass Communications
- Mass Media/Arts
- Public Relations
- Video/Digital

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES
Audio and Video Equipment Technician
- Long-Term On-the-Job Training needed
- $40,498 annual salary
- 80 annual average openings in Georgia

Broadcast News Analyst
- Bachelor Degree needed
- $57,845 annual salary
- 20 annual average openings in Georgia

Broadcast Technician
- Associate Degree needed
- $35,443 annual salary
- 50 annual average openings in Georgia

Radio and Television Announcer
- Long-Term On-the-Job Training needed
- $34,445 annual salary
- 50 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Audio-Video Operator
- Broadcast Field Supervisor
- Broadcast Technician
- Camera Operator
- Chief Engineer
- Control Room Technician
- Editor
- Journalist
- Radio and TV Announcer
- Reporter
- Sound Technician
- Station Manager
- Transmission Engineer

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
BACHELOR’S DEGREE
- Animation School - Varying Certificates available
- Intern experience

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES
Camera Operators
(Television, Video, Motion Picture)
2015 Wage: $59,600

Composing Artist
2015 Wage: $65,000

Multimedia Artist and Animators
2014 Wage: $51,800

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

Mathematical Modeler
2015 Wage: $80,000

Storyboard Artist
2015 Wage: $55,000

3D Medical Animator
2015 Wage: $60,000

3D Modeler
2015 Wage: $75,000

ADDITIONAL CAREER CHOICES
- Animation Producers
- Artistic Director
- Graphic Designer
- Film and Video Editors
- 3D Animator
- TV Director
- TV Producer

Source: GADOE Plans of Study
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 screen-printing and offset printing. The third and final class Advance Graphic Design or Production the student will choose a to specialize in either Graphic Design or Graphic Production focusing on the demand and real world techniques of the specialty.

PATHWAY COURSES
- Introduction to Graphics and Design
- Graphic Design and Production
- Advanced Graphic Design

RECOMMENDED COURSES
- Computer Applications
- Fine Arts
- Marketing
- World Language

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES
- Graphic Design
- Prepress and Production

COLLEGES/UNIVERSITIES
- Graphic Design
- Industrial Design
- Printmaking
- Product Design

See www.GAfutures.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES

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

Commercial and Industrial Designers
Bachelor’s Degree
$54,900 annual salary
30 annual average openings in Georgia

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

Graphic Designer
Bachelor’s Degree
$49,900 annual salary
390 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Advertising and Promotions Managers
Art Directors
Fashion Design
Film and Video Editors
Illustration
Interior Designers
Multimedia Artist and Animators
Photography
3D Animation
Entrepreneurs, innovators, and small businesses play a key role in Georgia’s economy. Business professionals may be managers, owners, accountants, economists, administrators, or analysts. These individuals must possess excellent communication skills and be able to establish working relationships with many different people.

PATHWAY COURSES
- Introduction to Business and Technology
- Legal Environment of Business
- Entrepreneurship

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

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

COLLEGES/UNIVERSITIES
- Business
- Business Administration

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- DECA
- FBLA
- SkillsUSA

TOP CAREERS CHOICES

Advertising and Promotion Manager
Bachelor Degree needed
$76,898 annual salary
60 annual average openings in Georgia

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

Employment, Recruitment, and Placement Specialist
Bachelor Degree needed
$50,877 annual salary
440 annual average openings in Georgia

Social and Community Service Manager
Bachelor Degree needed
$59,904 annual salary
100 annual average openings in Georgia

Training and Development Manager
Bachelor Degree needed
$79,498 annual salary
60 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Appraiser and Assessor of Real Estate
- Accountant and Auditor Administrator
- Bank Teller
- Business Educator
- Chief Executive Officer
- Claims Adjuster
- Claims Examiner
- Computer Support Specialist
- Computer Systems Analyst
- Cost Estimator
- Database Administrator
- Entrepreneur
- Financial Analyst
- Financial Manager
- Investigator
- Network and Computer System
- Paralegal and Legal Assistant
- Personal Financial Advisor
- Sales Manager
- Tax Prepare

Source: GADOE Plans of Study
Students will analyze the primary functions of human resources management which include recruitment, selection, training, development, compensation, and evaluation. The pathway is designed to equip students with operational knowledge of hiring, managing, and terminating employees. Throughout the third course, students will be introduced to the Human Resource Management role by following the life cycle of an employee from organizational entry to exit. Upon mastery of the standards in this pathway, students should be prepared to pass an End of Pathway assessment in this career area.

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
Business Management degree at most colleges and universities
- Associate degree
- Bachelor’s degree
- Certificate program
- Doctoral degree
- Master’s degree
- Professional Certifications
  - GPHR (Global Professional in HR)
  - PRH (Professional in HR)
  - SPHR (Senior Professional in HR)
- Professional Membership in Society for Human Resource Management encouraged

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FBLA

TOP CAREERS CHOICES
Human Resources Managers
2012 Median Pay $99,720 per year
Entry-Level Education Bachelor’s degree
Work Experience in a Related Occupation
5+ years
Job Outlook 2012-22, 13% growth

ADDITIONAL CAREER CHOICES
- Compensation and Benefits Manager
- Employee Training Specialist
- Human Resources Assistant
- Human Resources Manager
- Human Resources Specialist
- Job Analysis Specialist
- Training and Development Manager

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

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

**RECOMMENDED COURSES**
- Any Education Course
- World Language
- Human Growth and Development
- Psychology
- Work-Based Learning

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

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

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

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- FCCLA
- FEA

**TOP CAREERS CHOICES**

**Middle School Special Education Teacher**
- Bachelor Degree needed
- $46,891 annual salary
- 230 annual average openings in Georgia

**Post-Secondary Education Administrator**
- Bachelor Degree plus work experience needed
- $81,328 annual salary
- 160 annual average openings in Georgia

**Post-Secondary Vocational Education Teacher**
- Bachelor Degree plus work experience needed
- $45,386 annual salary
- 370 annual average openings in Georgia

**Secondary School Teacher**
- Bachelor Degree needed
- $49,956 annual salary
- 1,360 annual average openings in Georgia

**ADDITIONAL CAREER CHOICES**
- Administration
- Adult Educator
- After-School Program Supervisor
- Associate Teacher
- Coach
- County Extension Agent
- Education Evaluator
- Educational and Teacher Aide
- Elementary School Teacher
- High School Teacher
- Media Specialist
- Middle School Teacher
- Post-Secondary Vocational Education
- Recreation Attendant
- School Administration
- Social Services Aide
- Special Education Teacher
- Teacher
Energy is a diverse field with many job opportunities. There are many people who help generate energy, transport it and connect energy to the things we use every day. There are also individuals creating new methods of energy generation. Working in energy can mean working for utilities, for gas and oil companies, for government and research groups, for energy education or environmental regulation agencies, for nonprofit energy awareness and conservation organizations or for many other energy related agencies.

PATHWAY COURSES
- Foundations of Energy and Power Technologies
- Energy and Power: Technology
- Appropriate and Alternative Energy Technologies

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
- 4-Year Universities/Colleges
- 2-Year Colleges
- Military
- On-the-Job Training
- Special Purpose Schools
- State Registered Apprenticeships
- Technical Colleges

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES
- Electrical Engineer
  Bachelor’s Degree
  $90,445 annual salary
- Electrical Power-Life Installers and Repairs
  Some post-secondary, no degree required
  $48,355 annual salary
- Industrial Production Manager
  Bachelor’s Degree
  $96,879 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

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

**PATHWAY COURSES**
- Introduction to Business and Technology
- Principles of Accounting I
- Principles of Accounting II

**RECOMMENDED COURSES**
- Any Business and Computer Science Course
- Marketing Principles
- Work-Based Learning
- World Language

**POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES**
**TECHNICAL COLLEGES**
- Accounting
- Banking and Finance
- Business Administration Technology
- Business Logistics
- Business Studies
- Business Technology
- Office Accounting Specialist
**COLLEGES/UNIVERSITIES**
- Accounting
- Actuarial Sciences
- Business Administration
- Economics
- Finance
- Insurance

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- DECA
- FBLA
- SkillsUSA

---

**TOP CAREERS CHOICES**

**Actuary**
- Bachelor Degree needed
- $84,822 annual salary
- 30 annual average openings in Georgia

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

**Financial Analyst**
- Bachelor Degree needed
- $80,787 annual salary
- 210 annual average openings in Georgia

**Real Estate Sales Agent**
- Post-Secondary Vocational Award needed
- $38,334 annual salary
- 500 annual average openings in Georgia

**Securities/Commodities Sales**
- Bachelor Degree needed
- $81,536 annual salary
- 100 annual average openings in Georgia

**ADDITIONAL CAREER CHOICES**
- Bank Teller and Manager
- Cash Manager
- Chief Financial Officer
- Controller
- Corporate Finance Professional
- Credit Analyst
- Financial Counselor
- Financial Manager
- Insurance Agent and Broker
- Insurance Manager
- Investment Banker
- Loan Officer
- Personal Financial Advisor
- Personal Wealth Manager
- Real Estate Agents and Broker
- Stock Broker

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

**PATHWAY COURSES**
- Introduction to Business and Technology
- Financial Literacy
- Principles of Accounting II

**RECOMMENDED COURSES**
- Any business and computer science course
- Marketing Principles
- Work-Based Learning
- World Language

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

**TECHNICAL COLLEGES**
- Accounting
- Business Technology
- Medical Administrative Assistant
- Office Accounting Specialist

**COLLEGES/UNIVERSITIES**
- Accounting
- Business Education
- Business Management
- Economics
- Finance
- Marketing and Real Estate

**ADDITIONAL CAREER CHOICES**
- Auditing Clerk
- Auditor
- Bookkeeper
- Budget Analyst
- Certified Public Accountant
- Corporate Accountant
- Entrepreneur
- FBI Agent
- Financial Advisor
- Financial Analyst
- Forensic Accountant
- Government Accountant
- Income Tax Professional
- Managerial Accountant
- Non-Profit Accountant
- Teacher

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

**PATHWAY COURSES**
- Introduction to Business and Technology
- Financial Literacy
- Banking, Investing and Insurance

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

**POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES**
TECHNICAL COLLEGES, COLLEGES/UNIVERSITIES
- Accounting
- Business Administration-Financial Analysis
- Business Technology
- Consumer and Family Financial Services
- Disaster Relief Insurance Claim Adjuster
- Financial Planning
- Office Accounting Specialist

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- FBLA

**TOP CAREERS CHOICES**

**Auditor**  
Bachelor Degree needed  
$73,910 annual salary

**Insurance Sales Agent**  
1-2 years Post-Secondary training needed  
$62,790 annual salary

**Claims Adjuster**  
Post-Secondary training plus on-the-job training needed  
$63,220 annual salary

**Accountant**  
Bachelor Degree needed  
$73,910 annual salary

**ADDITIONAL CAREER CHOICES**
- Business Teacher
- Financial Project Specialist
- Financial Planner
- Research
- Sales and Service

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

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

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

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- Academic Team
- Color Guard
- CTI
- Drill Team
- Raiders
- Rifle Team

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

ADDITIONAL CAREER CHOICES
- Administration
- Air Traffic Controller
- Aviation Ordinance
- Broadcast Specialist
- Computer
- Construction Equipment Repairer
- Criminal Investigation
- Equipment Repair
- Finance
- Flight Crew
- Human Resource
- Information Technology
- Intelligence
- Lawyer
- Military Police
- Missile Fire Control Operator
- Multi Media Illustrator
- Naval Aviation (Pilot)
- Photographer
- Supply Logistic
- Transportation Management

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

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

RECOMMENDED COURSES
- AP Chemistry or AP Biology
- AP Statistics
- Computer Science Courses
- Honors or Pre-AP Biology

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Associates of Science in Nursing
- Biochemistry
- Biomedical Sciences
- Biotechnology
- Dental Hygiene
- Epidemiology
- Health and Administration
- Healthcare fields (Pre-nursing, pre-vet, pre-med)
- Physical Therapy Assistant
- Public Health
- Radiologic Technology
- Surgical Technology

COLLEGES/UNIVERSITIES
- See www.GAcollege411.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- HOSA

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
Training programs are often available at community colleges/technical schools coupled with clinical experience. Students must pass a certification exam.

TECHNICAL COLLEGES
- Phlebotomy Technician

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- HOSA

TOP CAREERS CHOICES
Phlebotomists
- Bachelor Degree needed
- $46,891 annual salary
- 230 annual average openings in Georgia

Cardiovascular Technologist and Technicians
- Associate’s Degree
- $51,600 annual salary

Medical Lab Assistants
- Associate’s Degree
- $36,500 annual salary

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

ADDITIONAL CAREER CHOICES
- Information Nurse Specialists
- Medical Lab Assistants
- Nuclear Techs
- Patient Service Techs (PST)
- Physicians
- Phlebotomists
- Phlebotomy Supervisors
- Radiologic Technologists
- Registered Nurses
- Respiratory Technicians
- Other Related Health Science Occupations

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

PATHWAY COURSES
- Introduction to Healthcare Science
- Essentials of Health Information Technology
- Applications of Health Information Technology

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Health Information Management Technology
- Health Information Management Coding
- Health Information Technology Specialist
- Medical Billing Clerk
COLLEGES/UNIVERSITIES
- Computer Science
- Health Informatics
- Health Information Management
- Management Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- HOSA
- FBLA

TOP CAREERS CHOICES

Informatics Nurse Specialists
- Bachelor Degree needed
- $73,800 annual salary
- 810 annual average openings in Georgia

Software Developers
- Bachelor Degree needed
- $86,300 annual salary
- 340 annual average openings in Georgia

Computer Support Specialists
- Some College/No Degree Required
- $57,900 annual salary
- 830 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Computer Programmers
- Computer User Support Specialists
- Medical Records & Health Information Techs
- Medical Secretaries
- Medical Transcriptionists

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

PATHWAY COURSES
• Introduction to Healthcare Science
• Essentials of Healthcare Science
• Emergency Medical Responder

RECOMMENDED COURSES
• World Language
• Human Anatomy/Physiology
• Physics
• Psychology
• Work-Based Learning

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
• Fire Science
• Firefighter EMT

COLLEGES/UNIVERSITIES
• See www.GAfutures.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
• CTI
• HOSA

TOP CAREERS CHOICES
EMT/Paramedic
Post-Secondary Vocational Training needed
$29,328 annual salary
290 annual average openings in Georgia

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

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

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

ADDITIONAL CAREER CHOICES
Emergency Nurse
EMT and Paramedic
Firefighter
Paramedic Technologist

Source: GADOE Plans of Study
Sports Medicine is a branch of Health Science devoted to musculo-skeletal 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

TOP CAREERS CHOICES

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

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

Orthotist and Prosthetist
Bachelor Degree needed
$35,464 annual salary
10 annual average openings in Georgia

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

Physical Therapist Assistant
Associate Degree needed
$40,830 annual salary
90 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Chiropractor
- Doctor of Osteopathic Medicine
- Doctor of Podiatric Medicine
- Massage Therapist
- Occupational Therapist
- Orthopedic Doctor
- Physical Therapy Assistant
- Physician’s Assistant
- Radiologist
- Radiologist Technician

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

PATHWAY COURSES
- Introduction to Culinary Arts
- Culinary Arts I
- Culinary Arts II

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Catering Specialist
- Culinary Arts (Standard Pathway or Baking & Pastry Pathway)
- Culinary Nutrition Assistant
- Food and Beverage Director
- Food and Beverage Management
- Food Production Worker I
- Hospitality Management
- Hotel/Restaurant/Tourism Management
- Prep Cook
- Restaurant Manager

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FCCLA

TOP CAREERS CHOICES
Chef and Head Cook
- Work experience needed
- $31,304 annual salary
- 110 annual average openings in Georgia

Food Services Manager
- Work experience needed
- $49,880 annual salary
- 400 annual average openings in Georgia

Pastry Chef
- Work experience needed
- $34,890 annual salary
- 130 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Baker
- Cake Designer
- Caterer
- Chocolatier
- Culinary Arts Instructor
- Dining Room Management
- Dining Room Service
- Food and Beverage Director
- Food Stylist and Photographer
- Food Writer and Critic
- Hotel Manager
- Kitchen Manager
- Personal Chef
- Research and Development Chef
- Restaurant Entrepreneur

Source: GADOE Plans of Study
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 service-oriented industry, workers will need good communication skills, and they will have to understand the importance of meeting the needs of individuals.

PATHWAY COURSES
- Marketing Principles
- Hospitality, Recreation, and Tourism Essentials
- Hospitality, Recreation, and Tourism Management

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
- Adventure Tourism
- Communications
- Culinary
- Hospitality Management
- Hospitality Operations Management
- International Tourism
- Marketing Management
- Meetings & Event Planning
- Ski Guide
- Sports Marketing
- See www.GAfutures.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- DECA
- FBLA
- FCCLA

TOP CAREERS CHOICES

Hotel and Lodging Managers
- Bachelor Degree needed
- $51,840 per year

Meeting, Convention, Events Planners
- High School and on the job training
- $47,350 per year
- 10% increase expected

Public Relations
- Bachelors degree
- $58,020 per year

Restaurant Manager
- High School and on the job training
- $50,820 per year

Travel Agent
- High School and on the job training
- $36,460 per year

ADDITIONAL CAREER CHOICES
- Brand Manager
- Catering Manager
- Communications Specialist
- Country Club Marketing and Management
- Cruise Director
- Customer Account Representative
- Economic Development Specialist
- Entertainment Marketer
- Entrepreneur
- Golf Course Marketing and Management
- Hotel Management
- International Tourism & Hotel Management
- Parks and Recreation Management
- Purchaser
- Real Estate Agent
- Recreation and Amusements Marketer
- Restaurant Management
- Sales Representative
- Social Media Marketer
- Sports and Entertainment Marketer
- Tourism Director
- Travel Agent
- Travel Blogger
- Travel Planner

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

PATHWAY COURSES
- Marketing Principles
- Introduction to Sports and Entertainment Marketing
- Advanced Sports and Entertainment Marketing

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES
- Business Administration
- Business Management
- Executive Coaching
- Expert Sales Management
- Project Management
- Visual Merchandising

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- DECA
- FBLA

TOP CAREERS CHOICES

Marketing Manager
- Bachelor Degree needed
- $94,307 annual salary
- 310 annual average openings in Georgia

Marketing Research Analyst
- Bachelor Degree needed
- $61,464 annual salary
- 210 annual average openings in Georgia

Public Relations Specialist
- Bachelor Degree needed
- $48,672 annual salary
- 120 annual average openings in Georgia

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

ADDITIONAL CAREER CHOICES
- Advertising Account Executive
- Agent
- Brand Manager
- Cashier
- Communications Specialist
- Customer Service Representative
- Demonstrator and Product Promoter
- Desktop Publisher
- Entertainment Marketer
- Entrepreneur
- Fashion Retailer
- Market Research Analyst
- Marketing Specialist
- Media Buyer
- Product Development Management
- Public Relations Specialist
- Purchaser
- Retail Buyer
- Retail Salesperson
- Sales
- Sales Representative
- Sign Maker
- Sports Marketer
- Website Designer
- Web Developer
- Webmaster

Source: GADOE Plans of Study
http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Georgia-Career-Paths-CTAE.aspx
Employment in this field is expected to grow faster than average through 2014 as a result of the increasing emphasis on disease prevention through improved dietary habits. A growing and aging population will increase the demand for meals and nutritional counseling agencies in hospitals, residential care facilities, schools, prisons, community health programs, and home health care.

PATHWAY COURSES
- Food, Nutrition, and Wellness
- Food for Life
- Food Science

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Catering Specialist
- Culinary Arts
- Culinary Nutrition Assistant
- Food and Beverage Director
- Food and Beverage Management
- Food Production Assistant, Worker, or Apprentice
- Food Production Worker I
- Hotel/Restaurant/Tourism Management
- Prep Cook
- Restaurant Manager

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FCCLA

TOP CAREERS CHOICES
Chef and Head Cook
- Work experience needed
- $31,304 annual salary
- 110 annual average openings in Georgia

Dietician/Nutritionist
- Bachelor Degree needed
- $42,619 annual salary
- 80 annual average openings in Georgia

Food Scientist and Technologist
- Bachelor Degree needed
- $55,869 annual salary
- 10 annual average openings in Georgia

Food Services Manager
- Work experience needed
- $46,384 annual salary
- 400 annual average openings in Georgia

Health Education
- Master Degree needed
- $53,290 annual salary
- 90 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Agricultural Engineer
- Biochemist
- Chemical Technician
- Consumer Representative
- Dietetic Technician
- Family and Consumer Science Teacher
- Flavorist
- Food Inspector
- Food Service Manager
- Geriatric Food Designer
- Health Educator
- Health Inspector
- Microbiologist
- Product Evaluation Scientist
- Research and Development Specialist
- Sensory Scientist
- Teacher Educator
- Technical Writer
- Toxicologist

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

PATHWAY COURSES
- Introduction to Personal Care Services
- Cosmetology Services II
- Cosmetology Services III

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Barber License
- Cosmetology
- Cosmetology Instructor License
- Cosmetology License
- Esthetician License
- Hair Designer
- Master Cosmetology License
- Shampoo Technician

COLLEGES/UNIVERSITIES
- Cosmetology

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

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

Requirements:
- COSMETOLOGIST: 1500 Hours, Apprenticeship 3000 Hours
- HAIR DESIGN: 1325 Hours, Apprenticeship 2650
- ESTHETICIAN: 1000 Hours, Apprenticeship 2000 Hours
- NAIL TECHNICIAN: 525 Hours, Apprenticeship 1050 Hours

ADDITIONAL CAREER CHOICES
- Barber Stylist
- Chemical Texture Specialist
- Color Specialist Chemist
- Cosmetologist
- Cutting Specialist
- Editorial Specialist
- Esthetician
- Hair Color Specialist
- Hairstylist
- Make-up Artist
- Master Cosmetologist
- Nail Technicians
- Permanent Wave Technician
- Platform Artist
- Receptionist
- Salon Owner
- Shampoo Tech
- Wig Stylist

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

PATHWAY COURSES
- Introduction to Digital Technology
- Computer Science Principles or AP Computer Science Principles
- AP Computer Science

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES
- CISCO CCNP Specialist
- CISCO Network Specialist
- Computer Engineering Technology
- Computer System Design Specialist
- Computer Support Specialist
- Drafting Technology
- Electrical and Computer Engineering Technology
- Electromechanical Engineering Technology
- Industrial Engineering Technology
- Internet Specialist/Website Design
- LINUX/UNIX System Administrator
- Network Design Technology Specialist
- Network Specialist
- PC Repair & Network Technician
- 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

ADDITIONAL CAREER CHOICES
- Computer Programmers
- Computer & Information Systems Managers
- Computer Hardware Engineers
- Computer Network Architects
- Computer System Analysts
- Database Administrators
- Information Security Analysts
- Network and Computer Systems Administrators
- Software Engineers
- Video Game Designers

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

Computer Programmers
- Bachelor Degree needed
- $75,400 annual salary
- 230 annual average openings in Georgia

Computer System Analysts
- Bachelor Degree needed
- $73,800 annual salary
- 810 annual average openings in Georgia

Software Developers, Application
- Bachelor Degree needed
- $86,300 annual salary
- 340 annual average openings in Georgia

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

PATHWAY COURSES
- Introduction to Digital Technology
- Introduction to Cybersecurity
- Advanced Cybersecurity

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Cybersecurity
- Cyber Crime Specialist
- Computer Support Specialist
COLLEGES/UNIVERSITIES
- Computer Support Specialist
- Computer Science
- Management Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FBLA
- TSA

TOP CAREERS CHOICES
Computer & Information Systems Managers
Bachelor Degree needed
$134,679 annual salary
333 annual average openings in Georgia

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

Network & Computer System Administrators
Bachelor Degree needed
$83,734 annual salary
246 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
Administrative Support Workers
Network

ADDITIOANAL CAREER CHOICES
Computer & Information Systems Managers
Computer System Administrators
Computer Network Support Specialist
Computer Operators
Computer User Support Specialist
First-Line Supervisors of Office

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

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

RECOMMENDED COURSES
- Any Art Course
- Any Computer Science Course
- Any Mathematics Course
- Any Physics Course
- Student Internship

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

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

COLLEGES/UNIVERSITIES
- Computer Engineering
- Computer Science
- Management Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FBLA
- TSA

TOP CAREERS CHOICES

Computer Game Designer
Bachelor Degree Required
$63,970 annual salary

Multimedia Artists and Animators
Bachelor Degree needed
$70,530 annual salary

Computer and Information Systems Managers
Bachelor Degree Required
$134,679 annual salary
333 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Audio Engineer
Computer Programmer
Software Developer
Technology Support Specialist
Video Game Tester

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

TECHNICAL COLLEGES
- Computer Science
- Internet Specialist
- Programming
- Computer Simulation

COLLEGES/UNIVERSITIES
- Computer Science
- Computational Media
- Computer Information Systems

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- DECA
- FBLA
- TSA

Source: GADOE Plans of Study

TOP CAREERS CHOICES

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

Information Architect
- Bachelor’s Degree needed
- $100,240 Median Salary
- 9% growth from 2014 – 2017

Software Developer
- Bachelor’s degree needed
- $100,680 Median Salary
- 17% growth from 2014 - 2024

ADDITIONAL CAREER CHOICES

App Developer
Business Intelligence Analysts
Computer Programmer
Computer Systems Analysts
Cyber Security Consultant
Data Miner
Database Administrator
Game Developer
Information System
IT Consultant
Multimedia Programmer
Researcher
Software Engineer
Software QA Tester
System Analyst
Technical Writer
The Programming pathway gives many opportunities to strengthen problem solving skills, and provides needed skills in all disciplines.

**PATHWAY COURSES**
- Introduction to Digital Technology
- Computer Science Principles
- Programming, Apps, Games and Society

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

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

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

**COLLEGES/UNIVERSITIES**
- See www.GAcollege411.org for additional information.

**TOP CAREERS CHOICES**

**Computer Programmers**
- Bachelor Degree needed
- $73,674 annual salary
- 330 annual average openings in Georgia

**Computer Software Engineers**
- Bachelor Degree needed
- $77,022 annual salary
- 730 annual average openings in Georgia

**Computer System Analysts**
- Bachelor Degree needed
- $74,443 annual salary
- 890 annual average openings in Georgia

**Computing and Information Systems Managers**
- Bachelor Degree plus experience needed
- $101,400 annual salary
- 530 annual average openings in Georgia

**ADDITIONAL CAREER CHOICES**
- Actuaries
- Computer Scientist
- Computer Software Engineer
- Computer Systems Analyst
- Database Administrator
- Mathematician

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

PATHWAY COURSES
• Introduction to Digital Technology
• Computer Science Principles
• Web Development

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
• Computer Animation and Multimedia
• Computer Simulation
• Design and Media Production Technology
• Digital Media
• Internet Specialist - Website Design
• Printing and Graphics Technology
• Website Designer

COLLEGES/UNIVERSITIES
• Animation
• Computational Media
• Computer Science
• Graphic Designer

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
• CTI
• DECA
• FBLA
• TSA

TOP CAREERS CHOICES

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

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

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

Multi-Media Artist and Animator
Bachelor Degree needed
$44,554 annual salary
40 annual average openings in Georgia

ADDITIONAL CAREER CHOICES

Computer Service Technician
Database Developer
Graphic Designer
Help Desk Support
Illustrator
Internet Specialist
 Multimedia Developer
Network Analyst
Network Engineer
Programmer
Project Manager
Video Game Developer
Web Developer
Webmaster
Website Designer
Software Trainer

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

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

RECOMMENDED COURSES
- Anatomy
- Business Law
- Chemistry
- Dual Enrollment Courses
- Physics
- World Languages

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
- Advanced Fire Administration
- AFO – Airport Fire Officer
- AMF – Airport Master Firefighter
- Basic Fire Company Officer
- Emergency Medical Responder
- Fire Fighter I & II
- Fire Officer I & II
- Firefighter/EMSP
- Fire Science
- Fire Science Technology
- Health & Safety Officer
- ISO – Incident Safety Officer
- Public/Private Crisis Manager

TOP CAREERS CHOICES

First Line Supervisors and Prevention Workers
Bachelor Degree needed
$53,600 annual salary
90 annual average openings in Georgia

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

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

ADDITIONAL CAREER CHOICES

Forest Fire Inspectors and Prevention Specialists
Lifeguards, Ski Patrol, Other Recreational Protective Service Workers
Private Detectives and Investigators

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

**PATHWAY COURSES**
- Introduction to Law, Public Safety, Corrections, and Security
- Criminal Justice Essentials
- Criminal Investigations

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

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

**TECHNICAL COLLEGES**
- Criminal Justice Technology
- Law Enforcement Technician

**COLLEGES/UNIVERSITIES**
- Criminal Justice
- Criminology
- Pre-law

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- SkillsUSA

**TOP CAREERS CHOICES**

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

**Forensic Science Technician**
Associate Degree needed
$35,818 annual salary
20 annual average openings in Georgia

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

**Police and Sheriff’s Patrol Officer**
Long-Term On-the-Job Training needed
$35,402 annual salary
910 annual average openings in Georgia

**ADDITIONAL CAREER CHOICES**
- Attorney
- Bailiff
- Border Patrol
- Correctional Officer/Jailer
- Crime Scene Investigator
- Detective
- Dispatcher and Communications Officer
- Forest Ranger
- Game Warden
- Judge
- Paralegal
- Parole Officer
- Police Officer
- Private Detective and Investigator
- Private Security Guard
- Probation Officer
- Sheriff’s Deputy
- Special Agent
- State Trooper

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Paralegal Studies
- Legal Assistant
- Court Reporting
- Public Safety Training
COLLEGES/UNIVERSITIES
- Criminal Justice/Criminology
- Emergency Management/Homeland Security
- Law Enforcement Administration
- Police Science
- Pre-Law leading to Law School

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES

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

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

Paralegals and Legal Assistants
Bachelor Degree needed
$45,300 annual salary
360 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Correction Officers & Jailers
- Criminal Investigators
- EMTs & Paramedics
- Firefighters
- Information Security IT Specialists
- Police Officers
- Public Safety Communication
- Security & Protective Services
The Manufacturing Pathway provides students with opportunities to become familiar with manufacturing careers and develop fundamental technological literacy as they learn about the history, systems, and processes of manufacturing. Students will also learn about computer aided design (CAD), computer numerical control (CNC), robotics, computer assisted manufacturing (CAM), programmable logic controllers, automated guided vehicles (AGV), and computer integrated manufacturing (CIM). In the end students will have the understanding of how to design and implement a production system.

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Basic Machinist
- CNC Technology
- Electrical Control Systems
- Industrial Electrician
- Industrial Fluid Power Technician
- Industrial Mechanical Systems
- Industrial Motor Control
- Industrial Systems Technology
- Lathe Operator
- Mechatronics Technology
- Mill Operator
- Precision Machining and Manufacturing
- Process Control
- Programmable Control Technician
- Robotic Technician
- Technician I & II
- Welding Certificate
- Welding Technology

COLLEGES/UNIVERSITIES
- Industrial Engineering
- Manufacturing Engineering
- Manufacturing Technology
- Industrial Technology and Management
- Production Design

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FIRST Robotics
- TSA

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

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

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

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

ADDITIONAL CAREER CHOICES
- Control System Analyst
- Department Manager
- Production Supervisor
- Quality Supervisor
- Technician
- Welder

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

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

**RECOMMENDED COURSES**
- Advanced Math
- Physics
- Foundations of Engineering and Technology
- Intro to Digital Technology

**POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES**
- 4-Year Universities/Colleges
- 2-Year Colleges
- Technical Colleges
- State Registered Apprenticeships
- Special Purpose Schools
- On-the-Job Training
- Military

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- FIRST Robotics
- TSA

**TOP CAREERS CHOICES**

**Industrial Engineer**
- Bachelor’s Degree
- $76,880 annual salary

**Industrial Engineering Technician**
- Associate’s Degree
- $48,330 annual salary

**Industrial Machinery Mechanics**
- On-Job-Training
- $42,500 annual salary

**ADDITIONAL CAREER CHOICES**
- Chemical Plant & System Operators
- Commercial & Industrial Equipment Repairers
- Computer User Support Specialists
- Electrical and Electronics Repairers
- Electronics Engineering Technicians
- Industrial Engineers
- Industrial Engineering Technicians
- Industrial Machinery Mechanics
The Fashion Marketing pathway introduces students to the retail industry including the fundamentals of fashion marketing, key marketing concepts essential to every business, types of businesses involved in the industry, and an array of career opportunities. Students will develop skills in such areas as fashion economics, marketing segmentation and target marketing, product selection and buying, and inventory systems. Additionally, students will develop skills necessary for managing the following marketing elements: pricing, visual merchandising, advertising, special promotions, professional sales, and customer service.

PATHWAY COURSES
- Marketing Principles
- Fashion, Merchandising, and Retailing Essentials
- Advanced Fashion, Merchandising, and Retailing

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Business Management
- Cosmetics and Fragrance Marketing
- Interior Design
- Retail Manager
- Retail Merchandise Management
- Sales Professional Certificate
- Visual Merchandising Associate Certificate

COLLEGES/UNIVERSITIES
- Advertising and Marketing Communications
- Fashion Design
- Fashion Journalism
- Fashion Marketing and Management
- Public Relations
- Textile Development and Marketing

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- DECA
- FBLA

TOP CAREERS CHOICES
- Advertising and Promotions Manager
  - Bachelor Degree needed
  - $100,300 annual salary
- Wholesale and Retail Buyers
  - Bachelor Degree needed
  - $58,800 annual salary
  - 80 annual average openings in Georgia
- Online Merchants
  - Bachelor Degree needed
  - $66,000 annual salary

ADDITIONAL CAREER CHOICES
- Brand Managers
- Divisional Merchandise Managers
- Entrepreneurs/Company Owners
- Fashion Designers
- Financial Analysts
- General Merchandise Managers
- Merchandise Analysts
- Manufacturer’s Sales Representatives
- Manufacturer’s Store Coordinators
- Product Developers
- Retail buyers
- Visual Merchandisers
- Work-Based Learning

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

PATHWAY COURSES
- Marketing Principles
- Marketing and Entrepreneurship
- Marketing Management

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES

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

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

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- DECA
- FBLA

TOP CAREERS CHOICES

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

Human Resources, Training and Labor Relations Specialist
Bachelor Degree needed
$53,061 annual salary
150 annual average openings in Georgia

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

Marketing Research Analyst
Bachelor Degree needed
$61,464 annual salary
210 annual average openings in Georgia

Personal Financial Advisor
Bachelor Degree needed
$75,754 annual salary
470 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
Advertising Account Executive
Advertising Executive
Agent
Airline Customer Service Agent
Art Dealer and Director
Automobile Salesperson
Barber and Salon Owner
Brand Manager
Cashier
Communications Specialist
Creative Director
Customer Service Representative
Demonstrator and Product Promoter
Desktop Publisher
Entertainment Marketer
Entrepreneur
Fashion Retailer
Floral Designer
Funeral Director
Insurance Agent
Interior Designer
Landscape Architect
Logistics Specialist
Market Research Analyst
Marketing Specialist
Media Buyer
Mortgage Broker
Painter and Illustrator
Product Development Management
Public Relations Specialist
Purchaser
Real Estate Agent
Retail Buyer and Salesperson
Sales Representative
Sign Maker
Sports Marketer
Travel Agent
Website Designer
Web Developer

Source: GADOE Plans of Study
Keen competition should be expected in these highly coveted jobs. Those working in the marketing communications and promotion field coordinate market research, market strategies, sales, advertising, promotion, pricing, product development and public relations activities. Job opportunities available in this field include advertising managers, account executives, creative directors, media directors, promotions managers, marketing managers, product development managers, market research managers, public relations managers and sales managers. These jobs are found in almost every industry, and the number of jobs available is expected to increase faster than average through 2020. College graduates with related experience, a high level of creativity and strong communication skills will have the best job opportunities. Technology is changing the way we communicate and promote goods and services with potential customers. As a result, the more computer related skills one can accumulate, the better his/her employment opportunities in this industry.

**PATHWAY COURSES**
- Marketing Principles
- Promotion and Professional Sales
- Marketing Communications Essentials

**RECOMMENDED COURSES**
- Any Business and Computer Science Course
- Entrepreneurship
- Marketing Management
- Work-Based Learning
- World Language

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

**TECHNICAL COLLEGES**
- Business Administration
- Expert Sales Management
- Project Management

**COLLEGES/UNIVERSITIES**
- Accounting
- Advertising
- Business Economics
- Communication
- Graphic Arts
- International Business
- Management
- Marketing
- Professional Sales

**TOP CAREERS CHOICES**

**Advertising and Promotions Manager**
- Bachelor Degree needed
- $102,602 annual salary
- 71 annual average openings in Georgia

**Public Relations Specialists**
- Bachelor Degree needed
- $57,399 annual salary
- 112 annual average openings in Georgia

**Market Research Analysts**
- Bachelor Degree needed
- $66,503 annual salary
- 519 annual average openings in Georgia

**ADDITIONAL CAREER CHOICES**
- Advertising and Promotion Managers Search
- Business Teachers/Post-Secondary
- Green Marketers
- Marketing Managers
- Marketing Strategists
- Public Relations Specialists Advertising
- Sales Agents/Sales Managers
- Sales Representatives

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- DECA
- FBLA
Introduction to Engineering Design (IED) is a high school level course that is appropriate for 9th or 10th grade students who are interested in design and engineering. The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

PATHWAY COURSES
- Foundations of Engineering and Technology
- Engineering Concepts
- Engineering Applications

RECOMMENDED COURSES
- Algebra/Geometry
- Trigonometry/Physics

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- Electrical Utility Technology
- Engineering Technology
- Industrial Systems Technology
- Mechatronics Technology
- Military
- On-the-Job Training
- Special Purpose Schools
- State Registered Apprenticeships
- Wireless Engineering Technology

COLLEGES/UNIVERSITIES
- See www.GAcollege411.org for additional information.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- FIRST Robotics
- TSA

TOP CAREERS CHOICES

Civil Engineer
- Bachelor Degree needed
- $56,259 annual salary

Electrical Engineer
- Bachelor Degree needed
- $52,990 annual salary

Industrial Engineer
- Bachelor Degree needed
- $47,720 annual salary

Materials Engineer
- Bachelor Degree needed
- $51,420 annual salary

Mechanical Engineer
- Bachelor Degree needed
- $47,900 annual salary

ADDITIONAL CAREER CHOICES

Civil Engineer
- Designer
- Drafter
- Machinist
- Manufacturing
- Mechanical Engineer
- Quality Control Inspector

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

**PATHWAY COURSES**
- Fundamental of Aerospace
- Aviation Maintenance I
- Aviation Maintenance II

**RECOMMENDED COURSES**
- Any Mathematics Course
- Any Engineering Course
- Any Physics Course
- Computer Science

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

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

**COLLEGES/UNIVERSITIES**
- Aviation Maintenance Technology
- Aviation Maintenance Science
- Aviation Maintenance Management

**CAREER AND TECHNICAL STUDENT ORGANIZATIONS**
- CTI
- SkillsUSA

---

**TOP CAREERS CHOICES**

**Aviation Mechanics & Technicians**
- Some College/Technical School Required
- $83,370 annual salary

**Avionics Technicians**
- Some College/Technical School Required
- $69,650 annual salary

**Aviation Maintenance Manager/Director**
- Bachelor Degree Required
- $114,579 annual salary

**ADDITIONAL CAREER CHOICES**

- Aviation Inspector
- Aerospace Engineer
- Aircraft Crew Chief
- Airway Transportation Systems Specialist
- Designated Airworthiness Representative

---

Source: GADOE Plans of Study
Those employed in flight operations include aircraft pilots, flight engineers, flight attendants and air traffic controllers. The demand for these job positions is projected to increase as growth in world travel rises and many employed in the field are expected to retire. Job opportunities will be highest among passenger and cargo airline companies with the best job prospects being regional airlines and low-cost carriers. This pathway will introduce students to the basics of aircraft navigation and the communication methods necessary for safe aircraft operations. Additionally, students will gain a meteorological foundation for understanding the forecasting and charting of weather patterns as applied to the air transportation industry.

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
- Aerospace Engineering
- Aviation Management
- Professional Flight/Aeronautics

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA
- TSA

TOP CAREERS CHOICES

Air Traffic Controllers
Associate’s Degree
$124,540 annual salary
40 annual average openings in Georgia

Airfield Operations Specialists
High School Diploma
$44,500 annual salary
40 annual average openings in Georgia

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

ADDITIONAL CAREER CHOICES
- Aerospace Engineers
- Aircraft Cargo Handling Supervisors
- Airfield Operations Specialists
- Aviation Safety Specialists
- Avionics Inspectors
- Flight Attendants
- Operations Technicians

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

PATHWAY COURSES
- Logistics Fundamentals
- Logistics Operations
- Materials Management

RECOMMENDED COURSES
- Foundations of Engineering and Technology
- Intro to Digital Technology
- Introduction to Mechatronics

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
- 4-Year Universities/Colleges
- 2-Year Colleges
- Military
- On-the-Job Training
- Special Purpose Schools
- State Registered Apprenticeships
- Technical Colleges

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES

Logistics Manager
Bachelor’s Degree
$68,900 annual salary

Materials Mover
Diploma, Industry Credential
$23,400 annual salary

Storage and Distribution Manager
Bachelor’s Degree
$77,900 annual salary

ADDITIONAL CAREER CHOICES
Clerks
Laborers and Freight, Stock and Materials
Logisticians
Logistics Analysts
Logistics Engineers
Logistics Managers
Movers
Packers and Packagers
Power Distributors & Dispatchers
Production, Planning & Expediting
Storage and Distribution Managers
Supply Chain Managers
Transportation Managers

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

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

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

POST-SECONDARY DEGREES, DIPLOMAS, AND CERTIFICATES
TECHNICAL COLLEGES
- ASE
- Automotive Collision Repair
- Automotive Technology/Technician
- Industrial Truck (Fork Lift) Maintenance Technician
- Motorsports Vehicle Technology
- Welding

COLLEGES/UNIVERSITIES
- Automotive Engineering
- Business Management
- Education

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
- CTI
- SkillsUSA

TOP CAREERS CHOICES
Automotive Service Technician and Mechanics
- Post-Secondary Vocational Certification
- $34,549 annual salary
- 1,000 annual average openings in Georgia

Bus and Truck Mechanic/Diesel Engine Specialist
- Post-Secondary Vocational Certification
- $36,504 annual salary
- 380 annual average openings in Georgia

Electrical and Electronics Repairers, Commercial and Industrial Equipment
- Post-Secondary Vocational Certification
- $47,611 annual salary
- 130 annual average openings in Georgia

Vocational Teacher, Post-Secondary School
- Bachelor Degree or higher plus work experience
- $44,637 annual salary
- 250 annual average openings in Georgia

ADDITIONAL CAREER CHOICES
- Auto Manufacturer Sales
- Auto Manufacturer Service
- Auto or Body Technician
- Automotive Engineer
- Automotive Mechanist
- Automotive Parts Sales
- Automotive Sales
- Body Shop Manager
- Dealership or Shop Owner
- DOT Salvage Inspector
- Insurance Adjuster
- Parts Professional
- Quality Control Technician
- Retail
- Service Advisor
- Service Director Dealership
- Specialized Technician Teacher
- Technician (ASE Certified)
- Warranty Clerk
- Waste Management (EPA)
**INTERNSHIP FORSYTH**

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

Internship Forsyth program is designed to provide experiences and activities that support a school to career transition. This simply means that students are allowed to work off campus in the business community in order to learn more about a chosen career. Once a student has met all requirements, the Coordinator will determine the correct placement for the student. The students will earn one unit of credit for each completed course.

**REQUIREMENTS FOR INTERNSHIP FORSYTH**

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

**CAREER DEVELOPMENT**

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

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

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

CAREER DEVELOPMENT PARTNERS OPPORTUNITIES FOR PARTICIPATION:

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

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

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

www.forsyth.k12.ga.us/ctae
Throughout career and technical education curriculum in Forsyth County, occupational dress codes are studied as part of the pathway. In addition, students are taught and shown examples of proper interview attire in preparation for community Mock Interview Weeks, CTSO events, scholarship interviews, graduation ceremonies, and other important times during their high school careers. Because of the emphasis placed on appropriate dress, all high schools implement Dress for Success Days several times each school year. Overall, this program seeks to remind students that clothing and appearance are important parts of making a good impression.

DRESS FOR SUCCESS DAYS ALLOW STUDENTS TO:

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

ESSENTIAL COMPONENTS OF DRESS FOR SUCCESS DAYS:

- **Campus Impact:** Students around the school campus not involved in a career pathway or CTSO learn more about the importance of looking your best!
- **Family/Community Connections:** Local business/industry are able to demonstrate and speak to classes about proper interview attire and bring samples for students to see.
- **CTSO Connection:** Students learn how proper dress will impact them in student competition related to their career pathway.
- **Service Learning Projects:** Students are encouraged to organize service learning projects around dressing successfully. This may come through organizing a professional interview clothing drive or selling awareness bracelets, stickers, etc. to support their CTSO.
Georgia Career and Technical Instruction (CTI) is an organization which provides an avenue for students with disabilities to learn self-advocacy, career exploration and the skills needed for successful transition into their career goals after graduation. Georgia CTI is not organization based on membership. This is achieved through the local CTI Coordinator who works with each CTI student enrolled in a CTAE course. Once a CTI student has declared a career pathway based on assessments, aptitude and interest testing, it is encouraged that the student join the GA CTSO that best fits his/her career interest if available in their local school.

**Applicable Pathways:** All CTAE Career Clusters and Pathways.

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

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

**CTSO Core Values**

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

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

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

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

**Integrity** To deal honestly and fairly with one another.

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

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

**Recognition** Appreciation of the value of achievement.

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

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


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

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

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


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

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

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

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

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

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

JA DISCOVERY CENTERS
ja biztown & ja finance park

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.

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 third-party 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 real-world application in order to understand the influence of education on future opportunities.

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.

OUTCOMES
More Than 90% of Teachers Observed Their Students Effectively Integrating

96%
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.

97%
Realization of Relevance of Education
Teachers believed students understood the importance of setting ‘real-world’ long-term goals.

PRESENTED BY:

ASSURANT* AT&T
Chick-fil-A Foundation CISCO.
Delta
Racetrac
Sanford
SunTrust Foundation

georgia.ja.org @ja.georgia
We are actively seeking professionals to showcase their business/industry in the following career pathway areas:

- Agriculture/Animal Science
- Audio Visual Technology
- Automotive Technology
- Aviation/Aerospace
- Biotechnology
- Business/Finance
- Cosmetology
- Culinary Arts/Food Science
- Education
- Energy
- Engineering/Manufacturing
- Graphic Design
- Healthcare
- Hospitality/Tourism
- Information Technology
- Law/Criminal Justice
- Marketing
- Mechatronics
- Public Safety
- ROTC

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

November 14-15, 2019
Forsyth Conference Center
3410 Ronald Reagan Boulevard
Cumming, Georgia 30041

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

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

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

Questions? Contact Valery Lowe at vlowe@forsyth.k12.ga.us or Laura Stewart at lstewart@cummingsforsythchamber.org.
ALLIANCE ACADEMY FOR INNOVATION OF CUMMING-FORSYTH COUNTY

1100 Lanier 400 Parkway | Cumming, Georgia 30040

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

SIX INTEREST-THEMED ACADEMIES

SCHOOL OF AEROSPACE & LOGISTICS
Aviation Maintenance
Distribution and Logistics
Flight Operations

SCHOOL OF CRIMINAL JUSTICE & LAW
Applications of Law
Criminal Investigations
Legal Services

SCHOOL OF CYBERSECURITY & DIGITAL INTELLIGENCE
Computer Science
Cybersecurity
Game Design: Animation & Simulation

SCHOOL OF HEALTHCARE & FIRST RESPONDERS
Emergency Medical Responder
Fire and Emergency Services
Healthcare Information Technology

SCHOOL OF HOSPITALITY & DESIGN
Graphic Design
Hospitality and Tourism

SCHOOL OF MECHATRONICS & ENERGY
Energy Systems
Mechatronics

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

HONOR SOCIETIES
Beta Club
Mu Alpha Theta
National Honor Society
National Technical Honor Society
Academic Honor Societies
Great Careers Begin Here!

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

We’re training YOU for Georgia’s Careers to 2026!

**Associate Degree Programs**
(with Annual Wages & Job Openings)
- Dental Hygienist - $63,800 with 200 jobs
- Physical Therapist Assistant - $55,700 with 110 jobs
- Radiologic Technologist - $52,500 with 180 jobs
- Registered Nurse - $64,100 with 2,980 jobs
- Web Developer - $79,300 with 140 jobs

**Diploma Programs**
(with Annual Wages & Job Openings)
- Computer Support Specialist - $52,700 with 570 jobs
- Automotive Body/Related Repairers - $49,700 with 150 jobs
- Supervisors of Construction Trades - $59,000 with 380 jobs
- Office Supervisors - $56,800 with 1,160 jobs

*Source: Georgia Department of Labor*
28 Courses Guaranteed to Transfer* to UNG, UGA, GA Tech, and Other Public Universities in Georgia

Close By! • Affordable! • Class Options!

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

*Guaranteed Transfer with a grade of C or better

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

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

Effective January 2012
Find Your Passion! High School Career Pathway Options

- **ALLIANCE ACADEMY FOR INNOVATION**
  - Aerospace/Flight Operations
  - Aviation Maintenance
  - Cybersecurity
  - Distribution & Logistics
  - Emergency Medical Responder
  - Energy Systems
  - Firefighting
  - Game Design
  - Graphic Design
  - Health Information Technology
  - Hospitality & Tourism
  - Law Enforcement Services
  - Legal Services/Application of Law
  - Mechatronics

- **DENMARK High School**
  - Companion Animal Systems
  - Computer Science
  - Culinary Arts
  - Engineering & Technology
  - Entrepreneurship
  - Fashion Marketing
  - Financial Services
  - Manufacturing
  - Marketing & Management
  - Sports & Entertainment Marketing
  - Teaching as a Profession
  - Veterinary Science
  - Web Development

- **FORSYTH CENTRAL High School**
  - Automotive Technology
  - A/V Technology
  - Biotechnology
  - Computer Science
  - Cosmetology
  - Engineering & Technology
  - Food & Nutrition
  - Marketing & Management
  - Marketing Communications & Promotions
  - Sports & Entertainment Marketing
  - Teaching as a Profession
  - Veterinary Science

- **LAMBERT High School**
  - Advanced Accounting
  - A/V Technology
  - Biotechnology
  - Business Accounting
  - Computer Science
  - Culinary Arts
  - Dental Assisting/Phlebotomy
  - Engineering & Technology
  - Environmental Agriculture Systems
  - Fashion Marketing
  - Financial Services
  - Food & Nutrition
  - Internet of Things
  - JROTC – Marines
  - Marketing & Management
  - Marketing Communications & Promotions
  - Sports & Entertainment Programming
  - Teaching as a Profession
  - Sports Medicine
  - Web Development

- **NORTH FORSYTH High School**
  - Agricultural Leadership in Animal Production
  - Agricultural Leadership in Horticulture
  - Animation & Digital Media
  - A/V Technology
  - Computer Science
  - Engineering & Technology
  - Entrepreneurship
  - Fashion Marketing
  - Financial Services
  - Food & Nutrition
  - Healthcare - LTC Dual Enrollment
  - Human Resources Management
  - Landscape Management Systems
  - Manufacturing
  - Marketing Communications & Promotions
  - Marketing & Management Programming
  - Sports & Entertainment Marketing
  - Teaching as a Profession

- **SOUTH FORSYTH High School**
  - A/V Technology
  - Business Accounting
  - Computer Science
  - Culinary Arts
  - Engineering & Technology
  - Entrepreneurship
  - Fashion Marketing
  - Financial Services
  - Food & Nutrition
  - JROTC – Marines
  - Marketing & Management
  - Marketing Communications & Promotions
  - Sports & Entertainment Programming
  - Sports & Entertainment Marketing
  - Teaching as a Profession

- **WEST FORSYTH High School**
  - Business Accounting
  - Computer Science
  - Game Design
  - Financial Services
  - Marketing & Management
  - Sports & Entertainment Marketing
  - Web Development

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