Agriculture, Food & Natural Resources Cluster
The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

1. AGRICULTURAL MECHANICS SYSTEMS PATHWAY

BASIC AGRICULTURAL SCIENCE
This course is designed as the foundational course for all Agriculture, Food & Natural Resources Pathways. The course introduces the major areas of scientific agricultural production and research; presents problem solving lessons and introductory skills and knowledge in agricultural science and agri-related technologies. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities. This course is the prerequisite for all the agriculture pathways.

AGRICULTURAL MECHANICS TECHNOLOGY I
This laboratory course is designed to provide students with introductory level experiences in selected major areas of agricultural mechanics technology which may include wood working, agricultural structures, electrical wiring, electric arc welding, oxy/fuel cutting and welding processes, and power equipment operation and maintenance. Learning activities include information, skill development and problem solving. Classroom and laboratory activities are supplemented through FFA supervised agricultural experiences, leadership programs and activities.

AGRICULTURAL MECHANICS TECHNOLOGY II
The goal of this laboratory course is designed to offer students intermediate level experiences in selected major areas of agricultural mechanics technology which may include small engine maintenance and repair, metal fabrication, concrete construction, building construction, plumbing, electrical wiring, maintenance of agricultural machinery, equipment and tractors and soil and water conservation. Learning activities include information, skill development and problem solving.

Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Equipment Mechanics &amp; Service Technicians</td>
<td>High School</td>
<td>$32,600</td>
<td>$15.67</td>
<td>N/A</td>
</tr>
<tr>
<td>Parts Salespersons</td>
<td>High School</td>
<td>$29,500</td>
<td>$14.18</td>
<td>50</td>
</tr>
<tr>
<td>Agricultural Science Postsecondary Teachers</td>
<td>Bachelor’s Degree</td>
<td>$88,800</td>
<td>$42.69</td>
<td>1960</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:
Agricultural Equipment Operators, Agricultural Science Postsecondary Teachers, Farm Equipment Mechanics & Service Technicians, Parts Salespersons, Tree Trimmers & Pruners, Soil & Water Conservationists, Farm & Home Management Advisors, Animal Breeders

Possible Student Pathway Credentialing Opportunities:
National Occupational Competency Testing Institute (NOCTI) – Agriculture Mechanics or Agricultural Systems Technology II - Precision
2. FOOD ANIMAL SYSTEMS PATHWAY

BASIC AGRICULTURAL SCIENCE
This course is designed as the foundational course for all Agriculture, Food & Natural Resources Pathways. The course introduces the major areas of scientific agricultural production and research; presents problem solving lessons and introductory skills and knowledge in agricultural science and agri-related technologies. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities. This course is the prerequisite for all the agriculture pathways.

ANIMAL SCIENCE AND BIOTECHNOLOGY
This course 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.

AGRICULTURAL ANIMAL PRODUCTION AND MANAGEMENT
The goal of this course is to provide all students instruction in establishing and managing agricultural animal enterprises; includes instruction in selecting, breeding, feeding, caring for, and marketing beef and dairy cattle, horses, swine, sheep, and poultry. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

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<tr>
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<th>2012 Annual Wage</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Veterinarians</td>
<td>Advanced Degree</td>
<td>$79,300</td>
<td>$38.13</td>
<td>10</td>
</tr>
<tr>
<td>Food Science Technicians</td>
<td>Associate’s Degree</td>
<td>$29,700</td>
<td>$14.28</td>
<td>20</td>
</tr>
<tr>
<td>Animal Trainers</td>
<td>High School</td>
<td>$21,900</td>
<td>$10.53</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:
Agricultural Technicians, Animal Breeders, Animal Scientist, Animal Trainers, Farm & Home Management Advisors, Farm & Ranch Managers, Food Science Technicians, Hunters & Trappers, Nonfarm Animal Caretakers, Veterinarian Technologist & Technicians, Zoologist & Wildlife Biologists

Possible Student Pathway Credentialing Opportunities:
Animal Science II - Precision
3. FORESTRY/WILDLIFE SYSTEMS PATHWAY

BASIC AGRICULTURAL SCIENCE
This course is designed as the foundational course for all Agriculture, Food & Natural Resources Pathways. The course introduces the major areas of scientific agricultural production and research; presents problem solving lessons and introductory skills and knowledge in agricultural science and agri-related technologies. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities. This course is the prerequisite for all the agriculture pathways.

FOREST SCIENCE
This course provides entry-level skills for employment in the forest industry and for further study. The course covers establishing forests by natural and artificial means, maintaining and surveying forests, identifying and protecting trees, practicing silviculture, measuring trees and land, mapping, preparing for timber sales and harvest, employing multiple-use resource management, keeping records, and figuring taxes. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

WILDLIFE MANAGEMENT
This course introduces students to the principles of wildlife management and conservation and to opportunities for further education and careers in the field of wildlife biology. The course includes instruction in the history of wildlife management, ecological concepts, habitat assessment, habitat management techniques for wildlife, population dynamics, predator-prey relationships, wildlife species biology and identification, human-wildlife conflict resolution, the role of hunting in conservation, game and fish laws and regulations, hunters safety, and the application of scientific principles to managing wildlife habitat and populations. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

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<tr>
<th>Occupation Specialties</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Fish &amp; Game Wardens</td>
<td>High School</td>
<td>$30,000</td>
<td>$14.42</td>
<td>20</td>
</tr>
<tr>
<td>Foresters</td>
<td>Bachelor’s Degree</td>
<td>$57,300</td>
<td>$27.55</td>
<td>N/A in Georgia</td>
</tr>
<tr>
<td>Soil &amp; Water Conservationists</td>
<td>Bachelor’s Degree</td>
<td>$64,500</td>
<td>$31.01</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:

Possible Student Pathway Credentialing Opportunities:
National Occupational Competency Testing Institute (NOCTI) – Forestry Products & Processing or
4. PLANT AND FLORICULTURE SYSTEMS PATHWAY

BASIC AGRICULTURAL SCIENCE
This course is designed as the foundational course for all Agriculture, Food & Natural Resources Pathways. The course introduces the major areas of scientific agricultural production and research; presents problem solving lessons and introductory skills and knowledge in agricultural science and agri-related technologies. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities. This course is the prerequisite for all the agriculture pathways.

GENERAL HORTICULTURE AND PLANT SCIENCE
This course is designed as an introduction for the Horticulture-Plant Science Pathway Program of Study. The course introduces the major concepts of plant and horticulture science. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

FLORICULTURE PRODUCTION AND MANAGEMENT
This course is designed to introduce students to the principles and practices of floriculture production. Students will develop floriculture skills and the basic understanding necessary to be successful in entry-level positions in the floriculture industry. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

### Sample Pathway Occupations

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
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<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant &amp; Soil Scientists</td>
<td>Bachelor’s Degree</td>
<td>$68,900</td>
<td>$33.13</td>
<td>10</td>
</tr>
<tr>
<td>Nursery &amp; Greenhouse Managers</td>
<td>Bachelor’s Degree</td>
<td>$69,300</td>
<td>$33.32</td>
<td>450</td>
</tr>
<tr>
<td>Agricultural Teachers</td>
<td>Bachelor’s Degree</td>
<td>$90,400</td>
<td>$43.46</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**
Farm/Home Management, Advisors, Environmental Scientists, Hydrologists, Biologists, Food Scientists and Technologists, Landscape Architects, Crop Farmworkers and Laborers, Agricultural Technicians, Nursery Workers, Agricultural Sciences Teachers, Farm and Ranch Managers

**Possible Student Pathway Credentialing Opportunities:**
National Occupational Competency Testing Institute (NOCTI) – Plant Science/Horticulture State Developed Exam or Floriculture and Greenhouse Management A - Precision
5. VETERINARY SCIENCE PATHWAY

BASIC AGRICULTURAL SCIENCE
This course is designed as the foundational course for all Agriculture, Food & Natural Resources Pathways. The course introduces the major areas of scientific agricultural production and research; presents problem solving lessons and introductory skills and knowledge in agricultural science and agri-related technologies. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities. This course is the prerequisite for all the agriculture pathways.

ANIMAL SCIENCE AND BIOTECHNOLOGY
This course 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.

VETERINARY SCIENCE
The agricultural education course in veterinary science covers the basics of animal care. Topics covered include disease, parasites, feeding, shelter, grooming, and general animal care. The target population is career preparatory students desiring to continue education after high school or to enter the workforce after graduation from high school. College preparatory students benefit from the course as an elective if they plan to enter college and pursue a degree to enter the veterinary profession. This course allows students entering the workforce after graduation from high school to develop entry-level skills to become employed and to continue education on the job.

Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
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<tr>
<th>Occupation Specialties</th>
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<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinarians</td>
<td>Professional Degree</td>
<td>$76,600</td>
<td>$36.83</td>
<td>10</td>
</tr>
<tr>
<td>Veterinary Technologists &amp; Technicians</td>
<td>Associate’s Degree</td>
<td>$28,100</td>
<td>$13.51</td>
<td>30</td>
</tr>
<tr>
<td>Veterinary Assistants &amp; Laboratory Animal Caretakers</td>
<td>High School</td>
<td>$21,700</td>
<td>$10.43</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:
Animal Scientists, Veterinarians, Veterinarian Technologists and Technicians, Veterinary Assistants and Laboratory Animal Caretakers, Zoologists and Wildlife Biologists, Animal Control Workers, Farm and Ranch Managers, Animal Trainers, Biological Technicians, Hunter and Trappers

Possible Student Pathway Credentialing Opportunities:
Veterinary Assistant - Precision
6. **WELDING PATHWAY**

Welding is the most common way of permanently joining metal parts. In this process, heat is applied to metal pieces, melting and fusing them to form a permanent bond.

Welding is a Move On When Ready program through Savannah Technical College. Welders work in a variety of industries, from car racing to manufacturing. Skilled welding, soldering, and brazing workers generally plan work from drawings or blueprints, or specifications and use their knowledge of welding processes and base metals to determine how best to join the parts. Welders and cutters may work outdoors, often in inclement weather, or indoors, sometimes in a confined area designed to contain sparks and glare.

**Junior Year or Senior Year – Class is taught from 1:30 – 4:30 or 3:30 – 6:30 at STC Effingham Campus**
- Weld 1000 (Fall Semester)
- Weld 1010 (Fall Semester)
- Weld 1040 (Fall Semester)

**Junior Year or Senior Year – Class is taught from 1:30 – 4:30 or 3:30 – 6:30 at STC Effingham Campus**
- Weld 1153 (Spring Semester)
- Weld 1110 (Spring Semester)
- Weld 1156 (Spring Semester)

Students must be admitted to Savannah Technical College and must have their own transportation. Students need to register and take the ACCUPLACER exam.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
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<th>2012 Annual Wage</th>
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<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welders, Cutters &amp; Welder Fitters</td>
<td>High School</td>
<td>$32,400</td>
<td>$15.58</td>
<td>480</td>
</tr>
<tr>
<td>Structural Metal Fabricators</td>
<td>High School</td>
<td>$32,500</td>
<td>$15.63</td>
<td>110</td>
</tr>
<tr>
<td>Structural Iron &amp; Steel Workers</td>
<td>High School</td>
<td>$33,800</td>
<td>$16.25</td>
<td>140</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Construction is one of the nation’s largest industries with over 7 million wage and salary jobs and 1.9 million self-employed workers. Construction includes the building of new structures as well as additions and modifications to existing ones. The construction industry also includes maintenance, repair and improvements on these structures.
Welders and solderers use heat to permanently join pieces of metal. Because of its strength, welding is important to the manufacture of ships, automobiles, and aircraft. In addition, welders work in the construction industry, joining beams in buildings and other structures. Solderers use similar processes on electronic and other small equipment. The outlook for welders and solderers varies by industry.

Workers are required to complete extensive on-the-job-training, apprenticeships, and/or technical college programs.

Employment of welders, cutters, solderers, and brazers is expected to grow 15 percent from 2010 to 2020, about as fast as the average for all occupations. This employment growth reflects the need for welders in manufacturing because of the importance of welding as part of the manufacturing process. Welders can easily move from one industry to another because basic welding skills are the same across industries. Welders who work in the automotive manufacturing industry can find work in the oil and gas industry. Growth in the defense industry as well as the need to rebuild bridges, highways and aging building will contribute to employment growth.

Overall job prospects will vary by skill level. Job prospects should be good for welders trained in the latest technologies. Welding schools report that graduates have little difficulty finding work, but many welding employers report difficulty finding properly skilled welders. However, welders who do not have up-to-date training may face competition for jobs. For all welders, job prospects should be better for those willing to relocate.

Related Pathway Occupations:
Welders, Cutters & Welder Fitters, Assemblers & Fabricators, Boilermakers, Layout Workers, Pipe Fitters & Steamfitters, Reinforcing Iron & Rebar Workers, Structural and Steel Workers, Tool & Die Workers, Sheet Metal Workers, Plumbers, Machinists

Possible Student Pathway Credentialing Opportunities:
Basic Shielded ARC Welder –Technical Certificate of Credit (TCC) from Savannah Technical College
Gas Metal ARC Welder –Technical Certificate of Credit (TCC) from Savannah Technical College
Gas Tungsten ARC Welder –Technical Certificate of Credit (TCC) from Savannah Technical College
Arts, A/V Technology & Communications Cluster
Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and designing, journalism, and entertainment services.

7. AUDIO AND VIDEO TECHNOLOGY AND FILM PATHWAY

**AUDIO VIDEO TECHNOLOGY & FILM I**
This course prepares students for employment or entry into a postsecondary education program in the audio and video technology career field. Topics covered include, but are not limited to: terminology, safety, basic equipment, script writing, production teams, production and programming, lighting, recording and editing, studio production, and professional ethics.

**AUDIO VIDEO TECHNOLOGY & FILM II**
This second course prepares students for a career in audio and video technology production and/or prepares students to transfer to a postsecondary program for further study. Topics include: Planning, Writing, Directing and Editing a Production; Field Equipment Functions; Operational Set-Up and Maintenance; Advanced Editing Operations; Studio Productions; Performance; Audio/Video Control Systems; Production Graphics; Career Opportunities; and Professional Ethics.

**AUDIO VIDEO TECHNOLOGY & FILM III**
This transition course is designed to facilitate student-led projects under the guidance of the instructor. Students work cooperatively and independently in all phases of production.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio &amp; Video Equipment Techs</td>
<td>Some College No Degree Required</td>
<td>$37,000</td>
<td>$17.79</td>
<td>80</td>
</tr>
<tr>
<td>Camera Operators, Television, Video &amp; Motion Picture</td>
<td>Bachelor’s Degree</td>
<td>$47,300</td>
<td>$22.74</td>
<td>30</td>
</tr>
<tr>
<td>Film &amp; Video Editors</td>
<td>Bachelor’s Degree</td>
<td>$45,600</td>
<td>$21.92</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

**Related Pathway Occupations:**
Broadcast Technicians, Camera & Photographic Equipment Repairers, Camera Operators, Graphic Designers, Set & Exhibit Designers, Sound Engineering Technicians, Technical Directors/managers, Photographers, Audio & Video Equipment Techs
Possible Student Pathway Credentialing Opportunities:
Television Video Production Skills Connect Assessment by SkillsUSA Work Force Ready System or National Occupational Competency Testing Institute (NOCTI) – Television Production

Business, Management & Administration Cluster
Careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.

8. BUSINESS & TECHNOLOGY PATHWAY

INTRODUCTION TO BUSINESS & TECHNOLOGY
This course is designed for high school students as a gateway to the business pathways. The students will gain an overview of business and technology skills required for today’s business environment. Knowledge of business principles, the impact of financial decisions, and technology proficiencies demanded by business combine to establish the elements of this course. Emphasis is placed on developing proficient fundamental computer skills required for all career pathways.

BUSINESS & TECHNOLOGY
This course is designed to prepare students with the knowledge and skills to be an asset to the collaborative, global, and innovative business world of today and tomorrow. Publishing industry appropriate documents to model effective communication and leadership will be demonstrated through project based learning. Students will use spreadsheets and database software to manage data while analyzing, organizing and sharing data through visually appealing presentations.

BUSINESS COMMUNICATIONS
Students will explore the value of communication in their personal and professional life. In this course, students will create, edit and publish professional-looking business documents with clear and concise communication. Various forms of technology will be used to expose students to resources, software, and applications of communications.

<table>
<thead>
<tr>
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<th>2012 Annual Wage</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Administrative Services Managers</td>
<td>High School</td>
<td>$84,100</td>
<td>$40.43</td>
<td>450</td>
</tr>
<tr>
<td>Supervisor of Office &amp; Admin Support</td>
<td>High School</td>
<td>$51,100</td>
<td>$24.57</td>
<td>2,180</td>
</tr>
<tr>
<td>Management Analyst</td>
<td>Bachelor's Degree</td>
<td>$98,300</td>
<td>$47.26</td>
<td>1,500</td>
</tr>
</tbody>
</table>

Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

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<td>450</td>
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<tr>
<td>Supervisor of Office &amp; Admin Support</td>
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<tr>
<td>Management Analyst</td>
<td>Bachelor's Degree</td>
<td>$98,300</td>
<td>$47.26</td>
<td>1,500</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:
Administrative Service Managers, Computer Operators, Database Administrators, Word Processor or Typists, Management Analysts, Stock Clerks, Legal Secretaries, Medical Secretaries, Office Machine Operators, Computer & Information System Managers

Possible Student Pathway Credentialing Opportunities:
The Microsoft Office Specialist credential validates skills in the 2010 Microsoft Office system, covering Microsoft® Office Word 2010.
10. **ENTREPRENEURSHIP PATHWAY**

**INTRODUCTION TO BUSINESS & TECHNOLOGY**
This course is designed for high school students as a gateway to the business pathways. The students will gain an overview of business and technology skills required for today’s business environment. Knowledge of business principles, the impact of financial decisions, and technology proficiencies demanded by business combine to establish the elements of this course. Emphasis is placed on developing proficient fundamental computer skills required for all career pathways.

**LEGAL ENVIRONMENT OF BUSINESS**
Legal Environment of Business addresses statutes and regulations affecting businesses, families, and individuals. Students will get an overview of business law while concentrating on the legal aspects of business ownership and management. Legal issues addressed include court procedures, contracts, torts, consumer law, employment law, environmental law, international law, ethics, and the role of government in business.

**ENTREPRENEURSHIP**
Entrepreneurship focuses on recognizing a business opportunity, starting a business, operating and maintaining a business. Students will be exposed to the development of critical thinking, problem solving, and innovation in this course as they will either be the business owner or individual working in a competitive job market in the future. Integration of accounting, finance, marketing, business management, legal and economic environments will be developed throughout projects in this course.

Since there are not specific occupations representing this pathway, the following are resources for small business developers:
- FIRST STOP - www.sos.georgia.gov/firststop
- Georgia Entrepreneur & Small Business Programs – www.georgia.org/smallbusiness
- SCORE provides free, one-on-one counseling to potential entrepreneurs and mentoring to those who decide to start their own business. www.score.org.

Entrepreneurs, innovators, proprietors, and small businesses play a key role in Georgia’s economy. According to the United States Small Business Administration, there are 907,068 small businesses in Georgia (2008). Small business owners manage their own companies. Businesses include not only retail stores such as gift shops and bookstores, but also real estate, advertising, and employment agencies; self-service laundries; manufacturing firms; and franchise operations such as fast food restaurants and gas stations. Job opportunities in business are varied and educational requirements vary according to specialization. Business professionals may be managers, owners, accountants, economists, administrators, or analysts. Those considering a career in business, especially small business, should be analytical, detail-oriented, flexible, and decisive. They will be required to coordinate several activities at once, quickly analyze and solve specific problems, and cope with deadlines. Business professionals should also have good communication skills and be able to establish working relationships with many different people, from managers, supervisors and other professionals to clerks and related workers.

There are basically three types of small businesses: sole proprietorship, partnerships, and corporations. Owners are usually responsible for planning, managing money and buying needed materials no matter the nature of their company. Marketing skills are critical to a small business owner. It is important for owners to know when to take a risk, adapt to the changing market conditions, improve services, promote their goods or services and hire new employees. Like any other business, owners must be competitive while keeping cost down. Owners who employ other workers must hire, train, and supervise their employees. Some run the entire business themselves. The store owner may also unpack merchandise, build displays, and clean the shop.

**Possible Student Pathway Credentialing Opportunities:**
Entrepreneur – Oklahoma Career Tech or
National Occupational Competency Testing Institute (NOCTI) – General Management
Education & Training Cluster
Planning, managing and providing education and training services, and related learning support services such as administration, teaching/training, administrative support, and professional support services.

9. **EARLY CHILDHOOD CARE & EDUCATION PATHWAY**

NOTE: Students enrolling in the Early Childhood Care & Education Career Pathway must realize that background information regarding discipline or law enforcement infractions may limit participation in the program concentration. Students with medical conditions, including pregnancy that may create a liability situation for an employer, will receive an alternate assignment in lieu of the lab experience.

**EARLY CHILDHOOD EDUCATION I**

Early Childhood Education I prepares the student for employment in early childhood education and services. The course addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children.

**EARLY CHILDHOOD EDUCATION II**

Early Childhood Education II provides students a history of education, licensing and accreditation requirements, and foundations of basic observation practices and applications. Early childhood care, education, and development issues are also addressed include health, safety, and nutrition education; certification in CPR/First Aid/Fire Safety; information about child abuse and neglect; symptoms and prevention of major childhood illnesses and diseases; and prevention and control of communicable illnesses.

**EARLY CHILDHOOD EDUCATION III**

Early Childhood Education III is the third course in the Early Childhood Care and Education pathway and one option for program completers who may not have the opportunity of participating in the Early Childhood Education Internship. The course provided in-depth study of early brain development and its implications for early learning, appropriate technology integration, and developmentally appropriate parenting and child guidance trends. Also addressed are collaborative parent/teacher/child relationships and guidance, child directed play, the changing dynamics of family culture and diversity, the causes and effects of stress on young children, and infant nutrition.

### Sample Pathway Occupations

See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-School Teachers</td>
<td>Associate’s Degree</td>
<td>$27,700</td>
<td>$13.32</td>
<td>730</td>
</tr>
<tr>
<td>Teachers Assistants</td>
<td>High School</td>
<td>$18,800</td>
<td>$9.04</td>
<td>1,670</td>
</tr>
<tr>
<td>Education Administrators, Preschool and Childcare Center/Program</td>
<td>Advanced Degree</td>
<td>$41,600</td>
<td>$20.00</td>
<td>70</td>
</tr>
</tbody>
</table>

**Related Pathway Occupations:**
School Counselors, Librarians, School Psychologist, Instructors (all subjects)
Possible Student Pathway Credentialing Opportunities:
National Occupational Competency Testing Institute (NOCTI) – Early Childhood & Care Basic

10. **TEACHING AS A PROFESSION PATHWAY**

NOTE: Students enrolling in the Teaching as a Profession Pathway must have a 3.0 overall GPA. They must realize that background information regarding discipline or law enforcement infractions may limit participation in the program concentration. Students with medical conditions, including pregnancy that may create a liability situation for an employer, will receive an alternate assignment in lieu of the lab experience. **Students enrolling in this program must possess a valid driver’s license and have their own personal transportation.**

**EXAMINING THE TEACHING PROFESSION**
Exams the Teaching Profession prepares candidates for future positions in the field of education. Teaching as a Profession students study, apply, and practice the use of current technologies, effective teaching and learning strategies, the creation of an effective learning environment, the creation of instructional opportunities for diverse learners and students with special needs, and plan instruction based on knowledge of subject matter, students, community, and curriculum performance standards.

**CONTEMPORARY ISSUES IN EDUCATION**
This course provides in-depth study of early brain development and its implications for early learning, appropriate technology integration, and developmentally appropriate parenting and child guidance trends. Also addressed are collaborative parent/teacher/child relationships and guidance, child directed play, the changing dynamics of family culture and diversity, the causes and effects of stress on young children, and infant nutrition.

**TEACHING AS A PROFESSION PRACTICUM (Senior Year)**
The practicum offers a candidate in the Teaching as a Profession career pathway a field experience under the direct supervision of the Work-Based Learning Coordinator. The candidate intern will develop a portfolio of their skills, plan and teach a lesson or lessons, understand and practice confidentiality as it pertains to the teaching profession, meets the needs of the students with special needs, maintain the safety of the students, practice professionalism, and demonstrate ethical behavior. By the completion of this pathway with the required portfolio and passing of the state-wide assessment, students could receive University System of Georgia college credit for EDUC 2110.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postsecondary Business Teachers</td>
<td>Advanced Degree</td>
<td>$85,200</td>
<td>$40.96</td>
<td>120</td>
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<tr>
<td>Middle School Teacher, except Special Education &amp; Career Technicians</td>
<td>Bachelor’s Degree</td>
<td>$54,200</td>
<td>$26.06</td>
<td>790</td>
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<tr>
<td>Clinical, Counseling &amp; School Psychologists</td>
<td>Advanced Degree</td>
<td>$63,500</td>
<td>$30.53</td>
<td>140</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**
Teaching Assistants, Postsecondary Instructors, Social Workers, Educational Administrators, Instructional Coordinators

**Possible Student Pathway Credentialing Opportunities:**
Government & Public Administration Cluster
Planning and executing government functions at the local, state and federal levels, including governance, national security, foreign service, planning, revenue and taxation, and regulations.

11. NAVY JROTC PATHWAY (SEHS)

NAVAL SCIENCE I: INTRODUCTION TO NJROTC
The purpose of this course is to combine all information on military drill and ceremonies, uniform regulations, physical fitness, orienteering, principles of health, first aid, survival, leadership, and communications. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of 3 units of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

NAVAL SCIENCE II: NAUTICAL SCIENCE
The purpose of this course is to help students understand the missions, goals, and opportunities available as members of the NJROTC program. This course will also introduce students to the basic principles of leadership, which combined with the many opportunities for practical experience in the NJROTC program will prepare them for leadership roles in school and upon graduation. Students will gain an understanding of our nation, our values, traditions, heritage, respect for our laws, as well as becoming involved, responsible citizens.

NAVAL SCIENCE III: NAVAL ORIENTATION AND SKILLS
The purpose of this course is to build on the general introduction provided in Naval Science I, to further develop the traits of citizenship and leadership in students, introduce cadets to the maritime history of the world and the United States from the American Revolution through the present time. The material includes Bosnia, the demise of the Soviet Union, and the September 11, 2001 terrorists’ attack upon the United States.

NAVAL SCIENCE IV: NAVAL LEADERSHIP AND ETHICS
The purpose of this course is to introduce the various nautical sciences through classroom work and some laboratory time. The development of core skills that students should master is integrated throughout the course and includes geography, oceanography, astronomy, physical science, meteorology, and weather.

RELATED JROTC-NAVY OCCUPATIONS:
Students can continue career pathways by entering the job market and receiving on-the-job training or by entering a technical, 2-year, or 4-year college/university to receive specific job training relating to a managerial/leadership position of choice. Job fields may include government, private industry, entrepreneurship, and non-profit organizations to name a few. ROTC (Reserve Officer Training Corps) programs offered at various colleges/universities in Georgia and throughout the U.S. train qualified young men and women to become officers in the military services upon graduation from college.

Many high school students enlist in the military; others continue their education and enter the work force using the valuable leadership and self-discipline skills learned in the Junior Reserve Officers’ Training Corp (JROTC) program. NJROTC is designed to teach high school students the value of citizenship, leadership and service to the community, personal responsibility and a sense of accomplishment, while instilling in them self esteem, teamwork and self-discipline. The curriculum focus is reflected in the mission to motivate young people to be better citizens.
Satisfactory completion of the program at the secondary level can give the student the life and career skills to significantly contribute to success in careers in government, private industry entrepreneurship and non-profit organizations. It can also lead to advanced placement credit in the Senior ROTC program at an accredited college or university, or advanced rank in the armed forces. The military offers numerous credentials and licensing in many different and varied occupational fields.

12. **AIR FORCE JROTC PATHWAY (ECHS)**

Course Description for the First Year AF JROTC Cadet Class

The **mission** of the AFJROTC program is to “Develop citizens of character dedicated to serving their nation and community.”

The **goals** of the AFJROTC program are to instill:
- The values of citizenship.
- Service to the United States.
- Personal responsibility, and
- A sense of accomplishment.

The **objectives** of AFJROTC are to educate and train students in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character and self discipline through education and instruction in air and space fundamentals and the Air Force’s core values of “Integrity First, Service Before Self and Excellence In All We Do.”

This program will enable the students to:
- Develop a high degree of strong morals, self-esteem, self-reliance, personal appearance, and leadership.
- Adhere to the values of integrity, service, and excellence.
- Increase their understanding of patriotism and responsibilities as US citizens.
- Participate in community service activities.
- Expand their skills of critical thinking and problem solving, communication and collaboration, and creativity and innovation.
- Demonstrate military customs, courtesies, and traditions and develop habits of order, discipline, and social skills.
- Acquire a broad-based knowledge of aerospace studies and leadership education.
- Strive to graduate from high school and prepare for college and careers in the 21st century.
- Cultivate a commitment to physical fitness and a healthy lifestyle.

**AS 100: Aerospace Science: A Journey Into Aviation History**

This is the recommended first AS course for all new cadets. It is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations, then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history. It is interspersed with concise overviews of the principles of flight to include basic aerodynamics, aircraft motion and control, flight power, and rockets. Throughout the course, there are readings, videos, hands-on activities, and in-text and student workbook exercises to guide in the reinforcement of the materials.

The course objectives are:
1. Know the historical facts and impacts of the early attempts to fly.
2. Know the major historical contributors to the development of flight.
3. Know the contributions of the U.S. Air Force to modern aviation history.
4. Know the key events of space exploration history.

**Leadership Education 100: Citizenship, Character, & Air Force Tradition**

The LE-100 textbook introduces cadets to the Air Force Junior Reserve Officer Training Corps (AFJROTC) program providing a basis for progression through the rest of the AFJROTC program while instilling elements of good citizenship. It contains sections on cadet and Air Force organizational structure; uniform wear; customs, courtesies, and other military traditions; health and wellness; fitness; individual self-control; and citizenship. The course objectives are:

After successfully completing the Leadership Education I: Citizenship, Character & Air Force Tradition textbook the student will:
1. Know the importance of AFJROTC history, mission, purpose, goals, and objectives.
2. Know military traditions and the importance of maintaining a high standard of dress and personal appearance.
3. Know the importance of attitude, discipline, and respect, and why values and ethics are so important.
4. Know the importance of individual self-control, common courtesies and etiquette.
5. Know that an effective stress management program improves the quality of life.
6. Know why courtesies are rendered to the United States flag and the National Anthem.
7. Know why it is important to be a good democratic citizen and to be familiar with the different forms of government.
8. Know the importance of keeping yourself well and helping others stay well.

**Wellness Program**

Wellness is an official and integral part of the Air Force Junior ROTC program. The objective of the Wellness Program is to motivate cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives. There are 19 exercises in the AFJROTC program. Wellness is conducted once a week.

**Drill and Ceremonies**

Drill and Ceremonies is offered as a part of the Leadership Education phase. Drill and Ceremony is conducted once a week.
Course Description for the Second Year AF JROTC Cadet Class

The mission of the AFJROTC program is to “Develop citizens of character dedicated to serving their nation and community.”

The goals of the AFJROTC program are to instill:

- The values of citizenship,
- Service to the United States,
- Personal responsibility, and
- A sense of accomplishment.

The objectives of AFJROTC are to educate and train students in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character and self discipline through education and instruction in air and space fundamentals and the Air Force’s core values of “Integrity First, Service Before Self and Excellence In All We Do.”

This program will enable the students to:

- Develop a high degree of strong morals, self-esteem, self-reliance, personal appearance, and leadership.
- Adhere to the values of integrity, service, and excellence.
- Increase their understanding of patriotism and responsibilities as US citizens.
- Participate in community service activities.
- Expand their skills of critical thinking and problem solving, communication and collaboration, and creativity and innovation.
- Demonstrate military customs, courtesies, and traditions and develop habits of order, discipline, and social skills.
- Acquire a broad-based knowledge of aerospace studies and leadership education.
- Strive to graduate from high school and prepare for college and careers in the 21st century.
- Cultivate a commitment to physical fitness and a healthy lifestyle.


The Science of Flight: A Gateway to New Horizons is an introductory course and customized textbook that focuses on how airplanes fly, how weather conditions affect flight, flight and the human body, and flight navigation for second year cadets. The course is designed to complement materials taught in math, physics, and other science related courses and is aligned with the National Science Education Standards, the Math Standards and Expectations, and ISTE National Educational Technology Standards for Students.

In this course, every lesson includes a “Quick Write” and a short story related to the lesson; a “Learn About” that tells students what they’ll learn from the lesson; a list of vocabulary words in the lesson; “Wing Tips” that highlight specific and interesting facts; and many biographies and profiles. Each lesson closes with “Checkpoints” that will allow students to review what they have learned. An “Applying Your Learning” section at the end of each lesson presents discussion questions that will give them a chance to use what they have learned and provides another way to reinforce their understanding of the lesson’s content. The text has four chapters, each of which contains a number of lessons.

The course outcomes are:

1. Analyze the elements of flight.
2. Evaluate how atmospheric conditions affect flight.
3. Evaluate how flight affects the human body.
4. Analyze flight navigation and the purpose of aerial navigation aids.

Leadership Education 200: Communication, Awareness, and Leadership

Leadership Education 200 stresses communications skills and cadet corps activities. Much information is provided on communicating effectively, understanding groups and teams, preparing for leadership, solving conflicts and problems, and personal development. Written reports and speeches compliment the academic materials. Cadet corps activities include holding positions of greater responsibility in the planning and execution of corps projects. The course objectives are:

After successfully completing the Leadership Education II: Communication, Awareness, and Leadership course the student will:

1. Apply the key factors of effective communications.
2. Know the ways in which personal awareness affects individual actions.
3. Know the key elements of building and encouraging effective teams.
4. Apply the key behaviors for becoming a credible and competent leader.

Wellness Program

Wellness is an official and integral part of the Air Force Junior ROTC program. The objective of the Wellness Program is to motivate cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives. There are 19 exercises in the AFJROTC program. Wellness is conducted once a week.

Drill and Ceremonies

Drill and Ceremonies is offered as a part of the Leadership Education phase. Drill and Ceremony is conducted once a week.
Course Description for the Combined Third/Fourth AF JROTC Cadet Class

The mission of the AFJROTC program is to “Develop citizens of character dedicated to serving their nation and community.”

The goals of the AFJROTC program are to instill:

- The values of citizenship,
- Service to the United States,
- Personal responsibility, and
- A sense of accomplishment.

The objectives of AFJROTC are to educate and train students in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character and self-discipline through education and instruction in air and space fundamentals and the Air Force’s core values of “Integrity First, Service Before Self and Excellence In All We Do.”

This program will enable the students to:

- Develop a high degree of strong morals, self-esteem, self-reliance, personal appearance, and leadership.
- Adhere to the values of integrity, service, and excellence.
- Increase their understanding of patriotism and responsibilities as US citizens.
- Participate in community service activities.
- Expand their skills of critical thinking and problem solving, communication and collaboration, and creativity and innovation.
- Demonstrate military customs, courtesies, and traditions and develop habits of order, discipline, and social skills.
- Acquire a broad-based knowledge of aerospace studies and leadership education.
- Strive to graduate from high school and prepare for college and careers in the 21st century.
- Cultivate a commitment to physical fitness and a healthy lifestyle.

AS 410: Survival: Survive • Return

The Survival text for third and fourth year cadets is a synthesis of the basic survival information found in Air Force Regulation 64-4 Survival Training. The survival instruction will provide training in skills, knowledge, and attitudes necessary to successfully perform fundamental tasks needed for survival. Survival also presents “good to know” information that would be useful in any situation. The information is just as useful to an individual lost hunting or stranded in a snowstorm.

The course objectives are:

1. Know the elements of surviving.
2. Know how medicine procedures, clothing, and shelter can provide personal protection for a survivor in a survival situation.
3. Know the necessities for maintaining life in a survival situation.
4. Know how to travel and prepare for recovery in a survival situation.

Leadership Education 300: Life Skills and Career Opportunities

Life Skills and Career Opportunities, Second Edition provides an essential component of leadership education for today’s high school students who are third or fourth year cadets. This course is designed to prepare students for life after high school in the high-tech, globally oriented, and diverse workplace of the 21st century.

Students will learn how to become a more confident financial planner and to save, invest, and spend money wisely, as well as how to avoid the credit trap. They will learn about real-life issues such as understanding contracts, leases, warranties, legal notices, personal bills, practical and money-saving strategies for grocery shopping, apartment selection, and life with roommates. The Holland Interest Inventory and other self-assessments will help them to reveal their attitudes, aptitudes, and personal skills. This self-understanding will allow them to explore career paths and understand requirements that they will need to be successful at work and in life. To help students increase their potential for success through education, they will learn how to select a school that is right for them; how to apply for admission to a vocational or technical school, community college, or college/university; and how to succeed in these learning environments. Information is provided on how to conduct the job search for students who wish to enter the workforce right after high school or after additional education and training. They will learn how to prepare a winning résumé, and how to develop effective interviewing skills. Students will become more skilled at using the Internet for career research and learn how to network safely using social media. The text also provides information on working for the federal government to include careers in the military, aerospace industry, and public service. Finally, students will consider the most important elements of life skills for all Americans: civic responsibilities, such as volunteering, registering to vote, jury duty, and draft registration.

The course outcomes are:

1. Analyze the elements of successful financial management skills.
2. Create a plan to safeguard personal resources.
3. Analyze the different ways of pursuing a career path.
4. Analyze the requirements for applying to a college or university.
5. Analyze positive and negative impact of college life in meeting career goals.
6. Evaluate the essential process for successfully pursuing desired career or job.
7. Evaluate the benefits of working for the Federal Government.
8. Create a plan for successful career development.
**Wellness Program**

Wellness is an official and integral part of the Air Force Junior ROTC program. The objective of the Wellness Program is to motivate cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives. There are 19 exercises in the AFJROTC program. Wellness is conducted once a week.

**Drill and Ceremonies**

Drill and Ceremonies is offered as a part of the Leadership Education phase. Drill and Ceremony is conducted once a week.

**RELATED JROTC-AIR FORCE OCCUPATIONS:**

Students can continue career pathways by entering the job market and receiving on-the-job training or by entering a technical, 2-year, or 4-year college/university to receive specific job training relating to a managerial/leadership position of choice. Job fields may include government, private industry, entrepreneurship, and non-profit organizations to name a few.

ROTC (Reserve Officer Training Corps) programs offered at various colleges/universities in Georgia and throughout the U.S. train qualified young men and women to become officers in the military services upon graduation from college.

Although many high school students enlist in the military others continue their education and enter the work world using the valuable leadership and self-discipline skills learned in the Junior Reserve Officers’ Training Corp (JROTC) program. The mission of the Air Force JROTC program is to motivate young people to become better citizens. The program is dedicated to the growth of individual participants as students and persons. The JROTC program further aims to prepare students for life by providing a framework for qualities (skill, knowledge, and positive attitudes) that will help them succeed.

JROTC enables students to:

- Develop new skills for use in school and throughout life.
- Learn about character and values, leadership theories and principles, and human behavior.
- Gain invaluable knowledge through hands-on experiential learning activities to build self-awareness, essential life skills, and the ability to set and achieve goals.
- Apply knowledge gained from content areas that include communication, diversity, study skills, conflict resolution, decision-making, and service learning.

Satisfactory completion of the program at the secondary level can give the student skills to significantly contribute to success in careers in government, private industry, entrepreneurship and non-profit organizations. It can also lead to advanced placement credit in the Senior ROTC program at an accredited college or university, or advanced rank in the armed forces. The military offers numerous credentials and licensing in many different and varied occupational fields.
Health Science Cluster
Planning, managing and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

13. THERAPEUTIC SERVICES – PATIENT CARE PATHWAY

NOTE: Students enrolling in the Therapeutic Services – Patient Care Pathway must realize that background information regarding discipline or law enforcement infractions may limit participation in the program concentration. Students with medical conditions, including pregnancy that may create a liability situation for an employer, will receive an alternate assignment in lieu of the clinical lab experience. Students enrolling in this program must possess a valid driver’s license and have their own personal transportation. There is an application process for this pathway. Once a student is admitted and scheduled into “Patient Care Fundamentals” or “Allied Health & Medicine”, a student may be transferred out of the program if they fail to provide documentation of the following requirements:

- up-to-date Immunization Records (including the current season’s flu vaccine)
- two-step TB Skin Test
- current CPR certification (must be American Heart Association or American Red Cross)
- copy of a current Driver’s License
- copy of Auto Insurance
- copy of current Health Insurance Card
- copy of the Social Security Card
- signed Confidential Form
- signed Drug Consent Form
- signed Consent for Background Check

INTRODUCTION TO HEALTHCARE SCIENCE
Introduction to Healthcare Science is the first course for all Health Science Career Pathways. The course will enable students to receive initial exposure to many Healthcare Science careers as well as employability, communication, and technology skills necessary in the healthcare industry. The concepts of human growth, interaction with patients and family members, health, wellness, and preventative care are evaluated, as well as the legal, ethical responsibilities of today’s healthcare provider.

ESSENTIALS OF HEALTHCARE
The Essentials of Healthcare is a medical-focused anatomy course addressing the physiology of each body system, along with the investigation of common diseases, disorders and emerging diseases. The prevention of disease and the diagnosis and treatment that might be utilized are addressed, along with medical terminology related to each system. Students completing Essentials of Healthcare will also receive 1 credit for Anatomy and Physiology.

PATIENT CARE FUNDAMENTALS
This course is designed to provide students interested in Nursing with entry level skills most commonly associated with the entry level career title Nursing Assistant. Twenty-four (24) hours of clinical experience under the supervision of the instructor (s) in a nursing home are required. Clinicals will be scheduled in eight-hour shifts on weekends. Students not successfully completing the clinical will not be eligible to take the state exam. The students are required to meet both national and intrastate professional guidelines as designated by applicable regulatory agencies such as the Occupational Health and Safety Administration (OSHA), Center for Disease Control (CDC), the department of Health and Human Services (HHS) with a specific focus on the Omnibus Budget Reconciliation Act 1987 (OBRA), and the Health Insurance Portability and Accountability Act of 1996 (HIPAA). This course with prerequisites meets the Certified Nurse Assistant (CNA) curriculum content as specified by the Georgia Medical Care Foundation. Students meeting all academic, attendance, and age requirement may elect to sit for the Georgia Registry’s Examination. Successful completion of the Georgia Registry Examination allows students to seek...
employment in the state of Georgia as a Certified Nursing Assistant (CNA). Students passing the Georgia Registry’s Examination will receive the certification when they reach the age of 18.

Careers in the Therapeutic Services pathway are focused primarily on changing the health status of the patient over time. Health professionals in this pathway work directly with patients and may provide care, treatment, counseling and health education information. National labor market information indicates that eight out of the top twenty fastest-growing occupations are in the Health Science industry. (Occupational Outlook Handbook)

Based on an aging population and a retiring workforce, the demand for health care workers will remain high through 2020. As roles of careers in Therapeutic Services change, professionals in this pathway will find increased opportunities to work independently. Additionally, an increasing number of career opportunities are becoming available outside of the traditional hospital setting.

Educational levels vary from occupation to occupation. Most Health Science occupations require additional education after high school and require that potential employees acquire the appropriate certification and/or licensing.

Workers in the Health Science industry must have a solid background in math, science, communications, and technical skills, be knowledgeable in their subject area, have the ability to communicate with others, and inspire trust and confidence.

Occupations in the Health Sciences represent the largest and fastest-growing industry in the United States employing over 10 million workers in more than 200 careers. Those considering a nursing career should have a strong desire to help others, a genuine concern for the welfare of patients and clients, and an ability to deal with people of diverse backgrounds in stressful situations.

Rapid job growth is expected in hospital outpatient facilities, such as same-day surgery, rehabilitations, and chemotherapy. Growth is also expected in nursing care facilities and in home health care. RNs with a bachelor’s degree will have better job prospects in supervisory and managerial positions than those with either an associate’s degree or a diploma. The pay scale will increase as students specialize to nurse practitioner, nurse anesthetist and clinical nurse specialist.

### Sample Pathway Occupations

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurses</td>
<td>Associate’s Degree</td>
<td>$63,200</td>
<td>$30.38</td>
<td>3,300</td>
</tr>
<tr>
<td>Medical and Health Services Managers</td>
<td>Bachelor’s Degree</td>
<td>$87,000</td>
<td>$41.83</td>
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<tr>
<td>Healthcare Social Workers</td>
<td>Associate’s Degree</td>
<td>$46,800</td>
<td>$22.50</td>
<td>220</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

### Related Pathway Occupations:

Certified Nursing Assistant (CNA), Licensed Practical Nurses (LPN), Registered Nurses (RN), Specialized Nursing, Athletic Trainers, Home Health Aides, Anesthesiologist Assistants, Medical Assistant, Occupational Therapist, Physical Therapist, Physician’s Assistant, Recreation Therapists, Respiratory Therapists, Surgical Technicians

### Possible Student Pathway Credentialing Opportunities:

Certified Nursing Assistant (CNA)

National Healthcare Association (NHA) – Certified Patient Care Technician (NHA-CPCT) – Students may sit for this exam if they take the additional 4th course (Allied Health & Medicine)

American Heart Association or American Red Cross CPR and First Aid Certification
14. THERAPEUTIC SERVICES – ALLIED HEALTH & MEDICINE PATHWAY

NOTE: Students enrolling in the Therapeutic Services – Allied Health & Medicine Pathway must realize that background information regarding discipline or law enforcement infractions may limit participation in the program concentration. Students with medical conditions, including pregnancy that may create a liability situation for an employer, will receive an alternate assignment in lieu of the clinical lab experience. Students enrolling in this program must possess a valid driver’s license and have their own personal transportation. There is an application process for this pathway. Once a student is admitted and scheduled into “Patient Care Fundamentals” or “Allied Health & Medicine”, a student may be transferred out of the program if they fail to provide documentation of the following requirements:

- up-to-date Immunization Records (including the current season’s flu vaccine)
- two-step TB Skin Test
- current CPR certification (must be American Heart Association or American Red Cross)
- copy of a current Driver’s License
- copy of Auto Insurance
- copy of current Health Insurance Card
- copy of the Social Security Card
- signed Confidential Form
- signed Drug Consent Form
- signed Consent for Background Check

Students in this program are required to perform mandatory clinical hours. These hours include Saturday hours.

INTRODUCTION TO HEALTHCARE SCIENCE

Introduction to Healthcare Science is the first course for all Health Science Career Pathways. The course will enable students to receive initial exposure to many Healthcare Science careers as well as employability, communication, and technology skills necessary in the healthcare industry. The concepts of human growth, interaction with patients and family members, health, wellness, and preventative care are evaluated, as well as the legal, ethical responsibilities of today’s healthcare provider.

ESSENTIALS OF HEALTHCARE

The Essentials of Healthcare is a medical-focused anatomy course addressing the physiology of each body system, along with the investigation of common diseases, disorders and emerging diseases. The prevention of disease and the diagnosis and treatment that might be utilized are addressed, along with medical terminology related to each system. Students completing Essentials of Healthcare will also receive 1 credit for Anatomy and Physiology.

ALLIED HEALTH & MEDICINE

This is the last course in the Therapeutic Services – Allied Health & Medicine Pathway. The course is designed to offer students the opportunity to become effective and efficient multi-skilled healthcare providers as they develop a working knowledge of various allied health opportunities. Students focusing on a career path in the healthcare field may apply classroom/lab knowledge and skills in the clinical setting as they participate in direct or simulated client care. The curriculum allows instructors to provide options for classroom/student growth opportunities in area(s) of interest to the students. The work-based learning strategy appropriate for this course is a minimum 40-hour clinical practicum. Clinicals may be scheduled in eight-hour shifts on weekends. Certification Opportunities: Patient Care Technician Certification is available if the student holds a Certified Nursing Assistant (CNA) certificate.
Allied health professionals are primarily involved with the delivery of health or related services pertaining to the identification, evaluation and prevention of diseases and disorders; dietary and nutrition services; rehabilitation and health systems management, among others. Occupations in the field include dental hygienists, diagnostic medical sonographers, dietitians, medical technologists, occupational therapists, physical therapists, radiographers, respiratory therapists, and speech language pathologists. Most health-related occupations will grow much faster than the average.

### Sample Pathway Occupations

See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
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<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical and Health Service Managers</td>
<td>Bachelor’s Degree</td>
<td>$76,800</td>
<td>$36.92</td>
<td>500</td>
</tr>
<tr>
<td>Occupational Health &amp; Safety Specialists</td>
<td>Bachelor’s Degree</td>
<td>$63,800</td>
<td>$30.67</td>
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</tr>
<tr>
<td>Respiratory Therapists</td>
<td>Associate’s Degree</td>
<td>$50,200</td>
<td>$24.13</td>
<td>170</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**

Dietetics & Nutritionists, Medical Records & Health Information Technicians, Health Specialties Teachers, Health Diagnosing & Treatment Practitioners, Medical & Health Service Managers, Mental Health Counselors, Registered Nurses, Medical Equipment Repairers

**Possible Student Pathway Credentialing Opportunities:**

National Health Science Assessment
American Heart Association or American Red Cross CPR and First Aid Certification
15. THERAPEUTIC SERVICES – SPORTS MEDICINE PATHWAY

After completing the first course of this pathway, students must apply to enroll in the second and third course of the pathway.

INTRODUCTION TO HEALTHCARE SCIENCE
Introduction to Healthcare Science is the first course for all Health Science Career Pathways. The course will enable students to receive initial exposure to many Healthcare Science careers as well as employability, communication, and technology skills necessary in the healthcare industry. The concepts of human growth, interaction with patients and family members, health, wellness, and preventative care are evaluated, as well as the legal, ethical responsibilities of today’s healthcare provider.

ESSENTIALS OF HEALTHCARE
The Essentials of Healthcare is a medical-focused anatomy course addressing the physiology of each body system, along with the investigation of common diseases, disorders and emerging diseases. The prevention of disease and the diagnosis and treatment that might be utilized are addressed, along with medical terminology related to each system. Students completing Essentials of Healthcare will also receive 1 credit for Anatomy and Physiology.

SPORTS MEDICINE
Sports Medicine is appropriate for students who wish to pursue a career in healthcare with a focus on musculoskeletal system, injury assessment, injury prevention, or rehabilitation including careers in Sports Medicine and Rehabilitative Services. This course will enable students to receive initial exposure to therapeutic services skills and attitudes applicable to the healthcare industry. The concepts of anatomy and physiology, assessment, preventative and rehabilitative care are introduced. Fundamental healthcare skills development is initiated, including medical terminology, kinesiology, patient assessment, record keeping, and basic life support.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness Trainers &amp; Aerobics Instructors</td>
<td>Bachelor’s Degree</td>
<td>$38,400</td>
<td>$18.46</td>
<td>70</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>Advanced Degree</td>
<td>$76,900</td>
<td>$36.97</td>
<td>150</td>
</tr>
<tr>
<td>Occupational Therapy Assistants</td>
<td>Associate’s Degree</td>
<td>$55,200</td>
<td>$26.54</td>
<td>20</td>
</tr>
<tr>
<td>Exercise Physiologists</td>
<td>Advanced Degree</td>
<td>$44,300</td>
<td>$21.30</td>
<td>N/A</td>
</tr>
<tr>
<td>Athletic Trainers</td>
<td>Bachelor’s Degree</td>
<td>$43,000</td>
<td>$20.67</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:
Athletic Trainers, Physical Therapists, Kinesiotherapists, Orthopedics, Medical & Health Services, Managers, Fitness Trainers & Aerobics Instructors, Registered Nurses, Medical Assistants

Possible Student Pathway Credentialing Opportunities:
National Health Science Assessment or Exercise Science/Sports Medicine – Precision American Heart Association or American Red Cross CPR and First Aid Certification
Hospitality & Tourism Cluster
Preparing individuals for employment in career pathways that relate to families and human needs such as restaurant and food/beverage services, lodging, travel and tourism, recreation, amusement and attractions

16. **CULINARY ARTS PATHWAY**

**INTRODUCTION TO CULINARY ARTS**
Introduction to Culinary Arts is a course designed to introduce 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.

**CULINARY ARTS I**
Culinary Arts I is designed to create a complete foundation and understanding of Culinary Arts leading to post secondary education or a food-service career. This fundamentals course begins to involve in-depth knowledge and hands-on skill mastery of culinary arts.

**CULINARY ARTS II**
Culinary Arts II is an advanced and rigorous in-depth course designed for the student who is continuing in the Culinary Arts Pathway and wishes to continue their education at the post-secondary level or enter the food-service industry as a proficient and well rounded individual. Strong importance is given to refining hands-on production of the classic fundamentals in the commercial kitchen.

**TWO-YEAR CTAE PATHWAY**
The Culinary Arts Pathway is a two-year CTAE pathway offered at the Effingham College & Career Academy (ECCA). The first year the students will take “Introduction to Culinary Arts” for two credits at ECCA. During the second year, the students will take “Culinary Arts I” in the Fall Semester and take “Culinary Arts II” in the Spring Semester each for one credit. Students must be in the 10th grade to begin this pathway.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Managers</td>
<td>Some College No Degree Required</td>
<td>$48,000</td>
<td>$23.08</td>
<td>340</td>
</tr>
<tr>
<td>Chefs &amp; Head Cooks</td>
<td>Some College No Degree Required</td>
<td>$37,900</td>
<td>$18.22</td>
<td>90</td>
</tr>
<tr>
<td>Meeting, Convention &amp; Event Planners</td>
<td>Bachelor’s Degree</td>
<td>$45,000</td>
<td>$21.63</td>
<td>170</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Related Pathway Occupations:
Bakers, Baristas, Chefs, Cooks, Food Service Managers, Waiters & Waitresses, Food Prep Workers

Possible Student Pathway Credentialing Opportunities:
National Occupational Competency Testing Institute (NOCTI) – Culinary Arts Cook Level 2
17. **CULINARY ARTS PATHWAY (MOWR)**

This Culinary Arts pathway is a *Move On When Ready* program through Savannah Technical College. This is a one-year pathway available to 11th and 12th graders only. The MOWR Culinary Arts pathway is taught at Effingham College & Career Academy. Students are required to meet with their high school counselor to complete the necessary MOWR paperwork for acceptance into the Culinary Arts MOWR program.

**Junior Year or Senior Year – Class is taught from 8:50 – 9:55 or 10:50 – 11:55**

- CUUL 1000 (Fall Semester)
- CUUL 1110 (Fall Semester)
- CUUL 1120 (Spring Semester)

Students are required to purchase a chef’s knife kit and a Savannah Technical College Culinary Arts uniform. The costs associated with the purchase of these items will be paid by the Effingham County Board of Education.

Students must be admitted to Savannah Technical College. Students need to register and take the ACCUPLACER exam. Transportation is available between ECHS/SEHS and ECCA via ECBOE shuttle buses.

Credential: Prep Cook Technical Certificate of Completion
Human Services Cluster
Preparing individuals for employment in career pathways that relate to families and human needs such as personal care and consumer services

18. COSMETOLOGY PATHWAY

The Cosmetology program is a sequence of courses that prepares students for careers in the field of cosmetology. After completing an Introduction to Personal Care Services course, students in the Cosmetology pathway will be exposed to necessary skills and knowledge useful in any area of Personal Care Services. The subsequent courses in this pathway are aligned to the requirements set forth by the State Board of Cosmetology.

The Cosmetology program emphasizes specialized training in safety, sanitation, state laws, rules, and regulations, chemistry, anatomy and physiology, skin, hair, and nail diseases and disorders, hair treatments and manipulations, hair shaping, hair styling, artificial hair, braiding/intertwining hair, chemical reformation and application, skin and nail care, hair coloring, hair lightening, reception, sales, management, math, reading, writing, interpersonal relations development, computer skills, employability skills, and work ethics.

INTRODUCTION TO PERSONAL CARE SERVICES

This course introduces both fundamental theory and practices of the personal care professionals including nail technicians, estheticians, barbers, and cosmetologists. Emphasis will be placed on professional practices and safety. Areas addressed in this course include: state rules and regulations, professional image, bacteriology, decontamination and infection control, chemistry fundamentals, safety, Hazardous Duty Standards Act compliance, and anatomy and physiology.

Junior Year or Senior Year - 2 periods (1st and 2nd period)
- COSM 1000 (Fall Semester)
- COSM 1020 (Fall Semester)
- COSM 1120 (Spring Semester)
- EMPL 1000 (Spring Semester)

Students must be admitted to Savannah Technical College and must have own transportation to Savannah Technical College – Effingham Campus. Class begins at 8:30 am and ends at 9:45 am. Students need to register to take the ACCUPLACER exam.

Although the pay is good in many of the jobs in Human Services, people choose these jobs because they want to serve others. These people are motivated by the need to assist others and to help make someone else’s life better. Personal Care Services occupations are many and varied including therapists, counselors, health aides, cosmetologists, financial planners, and estheticians. These jobs help people feel and look better, and offer services that make people’s lives more convenient.

Personal Care Services workers assist individuals with their personal appearance, including shampooing, cutting, coloring, and styling hair; giving manicures, pedicures, and scalp, and facial treatments; providing makeup analysis; cleaning and styling wigs and hairpieces; and providing personal fitness training. Also, within personal care services, funeral directors and attendants make funeral arrangements for grieving families.

Cosmetologists and hairdressers provide scalp and facial treatments and makeup analysis. Some also clean and style wigs and hairpieces. A growing number actively sell skin care products. Barbers, hairdressers, and cosmetologists usually work in a barbershop or salon. Physical stamina is important, because workers are on their feet for most of their shift. Many work part time, and nearly half were self-employed according to 2010 data.

All states require barbers, hairdressers, and cosmetologists to be licensed, with the exception of shampoo technicians. To qualify for a license, candidates must graduate from a state-approved cosmetology program.
Overall employment of barbers, hairdressers, and cosmetologists is expected to grow 14 percent from 2010 to 2020, as fast as the average for all occupations. Most job openings will result from the need to replace workers who leave the occupation.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cosmetologists, Hairdressers &amp; Barbers</td>
<td>High School</td>
<td>$19,100</td>
<td>$9.18</td>
<td>620</td>
</tr>
<tr>
<td>Electrologists</td>
<td>High School</td>
<td>$21,300</td>
<td>$10.24</td>
<td>120</td>
</tr>
<tr>
<td>Pedicurists/Manicurists</td>
<td>Postsecondary No award</td>
<td>$18,100</td>
<td>$8.70</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**
Barbers, Cosmetologists, Shampoo Technicians, Nail Technicians, Skin Care Technicians

**Possible Student Pathway Credentialing Opportunities:**
SkillsUSA Connect Cosmetology Exam
Shampoo Technician – Technical Certificate of Credit (TCC) from Savannah Technical College
**Information Technology Cluster**

*Building linkages in Information Technology occupations for entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.*

19. **WEB & DIGITAL DESIGN PATHWAY**

**INTRODUCTION TO DIGITAL TECHNOLOGY**

The Web & Digital Design Pathway is designed for high school students to understand, communicate, and adapt to a digital world as it impacts their personal life, society, and business world. Exposure to foundational knowledge in hardware, software, programming, web design, IT support, and networks are taught in a computer lab with hands-on activities and project-focused tasks. Student will not only understand the concepts, but apply their knowledge to situations and defend their actions/decisions/choices through the knowledge and skills acquired in this course. Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry. The knowledge and skills taught in this course build upon each other to form a comprehensive introduction to the digital world.

**DIGITAL DESIGN**

Using web design as the platform for product design and presentation, students will create and learn digital media applications using elements of text, graphics, animation, sound, video and digital imaging for various format. The digital media and interactive media projects developed and published showcase the student skills and ability. Emphasis will be placed on effective use of tools for interactive multimedia production including storyboarding, visual development, project management, digital citizenship, and web processes. Students will create and design web sites that incorporate digital media elements to enhance content of a web site.

**WEB DESIGN**

Students will move past learning how to write code and progress to designing professional looking web site suing graphical authoring tools that contains multimedia elements. Working individually and in teams, students will learn to work with web page layout and graphical elements to create a professional looking web site.

Information is valuable only when it is understood and utilized. Workers in digital media design bring ideas to life through technology whether creating a hot web site, a training video or designing the latest computer game.

Careers in web and digital communications involve creating, designing and producing interactive multimedia products and services, including the development of digitally-generated or computer-enhanced media used in business, training, entertainment, communications and marketing. Sample interactive media occupations include web designer, webmaster, 3D animator, virtual reality specialist, multimedia producer and graphic artist.

Organizations of all types and sizes use digital media (the World Wide Web, CD-ROM, DVD) to communicate with existing and potential customers, to track transactions and to collaborate with colleagues. Interactive media experts can find employment opportunities in organizations of all sizes and types, doing work such as creating e-business auction web sites that allow people around the world to buy and sell items in real-time.

Job prospects in the motion picture and video industry are excellent for multimedia artists and animators, film and video editors and others skilled in digital filming and computer-generated imaging. Graphic designers with web site design and animation experience will have good job opportunities. A Bachelor’s degree is required for most entry-level positions. However, an associate’s degree may be sufficient for technical positions. Most primary occupations in the field will have numerous job openings in the coming years. The web is fast becoming a way of life for most of the world. Therefore, the industry is continually looking for bright well-educated individuals to develop faster and more efficient processes for creating and delivering information.
### Sample Pathway Occupations

See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Developers</td>
<td>Bachelor’s Degree</td>
<td>$79,600</td>
<td>$38.27</td>
<td>National projected growth 20-28%</td>
</tr>
<tr>
<td>Computer System Analysts</td>
<td>Bachelor’s Degree</td>
<td>$78,000</td>
<td>$37.50</td>
<td>810</td>
</tr>
<tr>
<td>Computer Programmers</td>
<td>Bachelor’s Degree</td>
<td>$72,500</td>
<td>$34.86</td>
<td>190</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**

Software Developers, Computer Systems Engineers, Web Administrators, Computer & Information Systems Managers, Computer Operators
20. COMPUTER SCIENCE PATHWAY

INTRODUCTION TO DIGITAL TECHNOLOGY

Introduction to Digital Technology is the foundational course for Web & Digital Communications, Programming, Advanced Programming, Information Support & Services, and Network Systems pathways. This course is designed for high school students to understand, communicate, and adapt to a digital world as it impacts their personal life, society, and the business world. Exposure to foundational knowledge in hardware, software, programming, web design, IT support, and networks are all taught in a computer lab with hands-on activities and project-focused tasks. Students will not only understand the concepts, but apply their knowledge to situations and defend their actions/decisions/choices through the knowledge and skills acquired in this course. Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry. Competencies in the co-curricular student organization, Future Business Leaders of America (FBLA), are integral components of both the employability skills standards and content standards for this course. Various forms of technologies will be highlighted to expose students to the emerging technologies impacting the digital world. Professional communication skills and practices, problem-solving, ethical and legal issues, and the impact of effective presentation skills are taught in this course as a foundational knowledge to prepare students to be college and career ready. The knowledge and skills taught in this course build upon each other to form a comprehensive introduction to digital world.

COMPUTER SCIENCE PRINCIPLES

How can computing change the world? What is computer science? Engage your creativity, demonstrate and build your problem solving ability all while connecting the relevance of computer science to the society! Computer Science (CS) Principles is an intellectually rich and engaging course that is focused on building a solid understanding and foundation in computer science. This course emphasizes the content, practices, thinking and skills central to the discipline of computer science. Through both its content and pedagogy, this course aims to appeal to a broad audience. The focus of this course will fall into these computational thinking practices: connecting computing, developing computational artifacts, abstracting, analyzing problems and artifacts, communicating, and collaborating.

Various forms of technologies will be used to expose students to resources and application of computer science. Professional communication skills and practices, problem-solving, ethical and legal issues, and the impact of effective presentation skills are enhanced in this course to prepare students to be college and career ready. Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry.

AP COMPUTER SCIENCE

AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.
### Sample Pathway Occupations

See Georgia's HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programmer</td>
<td>Bachelor's Degree</td>
<td>$75,400</td>
<td>$36.54</td>
<td>230</td>
</tr>
<tr>
<td>Computer System Analyst</td>
<td>Bachelor's Degree</td>
<td>$73,800</td>
<td>$35.76</td>
<td>810</td>
</tr>
<tr>
<td>Software Developers Application</td>
<td>Bachelor's Degree</td>
<td>$86,300</td>
<td>$41.82</td>
<td>340</td>
</tr>
</tbody>
</table>

**Related Pathway Occupations:**

Software Engineers, Computer Programmers, Computer & Information Systems Managers, Computer Hardware Engineers, Computer Network Architects, Computer System Analysts, Database Administrators
1. **LAW ENFORCEMENT SERVICES PATHWAY**

Effingham County High School has a full-time instructor to teach the Law Enforcement Service Pathway. Students may also take this pathway through Move On When Ready with Savannah Technical College at Effingham College & Career Academy campus.

**Effingham County High School Pathway – Three Year Pathway**

**INTRODUCTION TO LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY**

In this course, the students will examine the basic concepts of law related to citizens’ rights and the responsibilities, and students will receive instruction in critical skill areas including: communicating with diverse groups, conflict resolution, ethics, CERT (Citizens Emergency Response Training, or similar program), basic firefighting, report writing, terrorism, civil and criminal law. Career planning and employability skills will be emphasized.

**CRIMINAL JUSTICE ESSENTIALS**

This course provides an overview of the criminal justice system. Starting with historical perspectives of the origin of the system, the course then reviews the overall structure. Student will then be immersed in criminal and constitutional law and will review basic law enforcement skills. The course ends with a mock trial to provide the students with a firsthand experience of the criminal justice system. Criminal Justice Essentials is designed to provide students with career-focused educational opportunities in various criminal justice fields. The course has elements which cover tactics, methods, and skills utilized by law enforcement.

**CRIMINAL INVESTIGATIONS**

This course will provide students with an opportunity to explore the basic processes and principles of a criminal investigation. Students will learn the legal responsibilities and challenges of the patrol officer, investigator and crime scene technician at a crime scene. Students will learn the importance of preserving and documenting the crime scene along with the identification, collection, and processing of evidence and of its contribution to the criminal investigation.

**Effingham College & Career Academy – Move On When Ready Program with Savannah Technical College – One Year Pathway**

**Junior or Senior Year - 2 periods (1st and 2nd periods)**

- CRJU 1010 (Fall Semester)
- CRJU 1030 (Fall Semester)
- CRJU 1040 (Fall Semester)
- CRJU 1068 (Spring Semester)
- CRJU 2020 (Spring Semester)
- EMPL 1000 (Spring Semester)

MOWR students must be admitted to Savannah Technical College. Students must meet with their high school counselor to complete the MOWR paperwork and register to take the ACCUPLACER exam. Upon completing the program, the MOWR students may be eligible for the Criminal Justice Specialist Technical Certificate of Credit (TCC) from Savannah Technical College.
Law, Public Safety, Corrections and Security workers plan, manage and provide legal, public safety, protection services and homeland security including professional and technical support services. Occupations are numerous and represent multiple levels of education and skills. Occupations fall into major categories based on common knowledge and skills: correction services such as correctional officers and jailers; emergency and fire management services such as fire fighters; security and protective services such as an information security IT specialists; law enforcement such as criminal investigators and special agents; and legal services such as a court reporters or lawyers.

Detectives and criminal investigators are plainclothes investigators who gather facts and collect evidence for criminal cases. They conduct interviews, examine records, observe the activities of suspects, and participate in raids or arrests. The Georgia jobs for detectives and criminal investigators will increase by 17% between 2008 and 2018.

Numerous 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.

**Related Pathway Occupations:**
Immigration & Customs Inspectors, Immigration & Customs Inspectors, Animal Control, Bailiffs, Criminal Investigators, Special Agents

**Possible Student Pathway Credentialing Opportunities:**
National Occupational Competency Testing Institute (NOCTI) – Criminal Justice or
Law Enforcement – Precision or
Criminal Justice Skill Connect

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detectives &amp; Criminal Investigators</td>
<td>Bachelor’s Degree</td>
<td>$45,600</td>
<td>$21.92</td>
<td>160</td>
</tr>
<tr>
<td>Police &amp; Sheriff’s Patrol Officers</td>
<td>Some College No Degree Required</td>
<td>$37,400</td>
<td>$17.98</td>
<td>710</td>
</tr>
<tr>
<td>Forensic Science Technicians</td>
<td>Bachelor’s Degree</td>
<td>$34,800</td>
<td>$16.73</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET
22. **ENGINEERING AND TECHNOLOGY PATHWAY**

The Engineering and Technology pathway is taught at Effingham College & Career Academy.

**Non-STEM students – Three Year Pathway**

**FOUNDATIONS OF ENGINEERING & TECHNOLOGY**
The Foundations of Engineering and Technology is the introductory course for the Engineering and Technology Education pathways. This STEM driven course provides the students with an overview of engineering and technology including the different methods used in the engineering design process developing fundamental technology and engineering literacy. Students will demonstrate the skills and knowledge they have learned through various project based activities while using an engineering design process to successfully master the “E” in STEM.

**ENGINEERING CONCEPTS**
Engineering Concepts is the second course in the Engineering and Technology Pathway. Students will learn to design technical solutions to engineering problems using a whole systems approach to engineering design. Students will demonstrate the application of mathematical tools, teamwork, and communication skills in solving various design challenges, while maintaining a safe work environment.

**ENGINEERING APPLICATIONS**
Engineering Applications is the third course in the Engineering and Technology Pathway. Students will apply their knowledge of Science, Technology, Engineering, and Math (STEM) to develop solutions to technological problems. Solutions will be developed using a combination of engineering software and prototype production processes. Students will use market research, cost benefit analysis, and an understanding of the design cycle to create and present design, marketing, and business plans for their solutions.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineers</td>
<td>Bachelor’s Degree</td>
<td>$105,700</td>
<td>$50.82</td>
<td>170</td>
</tr>
<tr>
<td>Electrical Engineers</td>
<td>Bachelor’s Degree</td>
<td>$88,000</td>
<td>$42.31</td>
<td>90</td>
</tr>
<tr>
<td>Avionics Technician</td>
<td>Associate’s Degree</td>
<td>$54,000</td>
<td>$25.96</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

**Related Pathway Occupations:**
All Engineering & Engineering Technologists, Architectural Drafters, Civil Estimators, Cost Estimators, Electrical & Electronics Drafters, Mapping Technicians, Quality Control Systems Manager

**Possible Student Pathway Credentialing Opportunities:**
National Occupational Competency Testing Institute (NOCTI) – Engineering State Developed Exam or Engineering Technology Skill Connect
Transportation, Distribution & Logistics Career Cluster

The planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

23. **AIRCRAFT ASSEMBLY TECHNICIAN PATHWAY**

Aircraft Assembly Technician Pathway - One Year MOWR Pathway available to 11th and 12th Graders.

**ASTT 1010- Basic Blueprint Reading - 4 credit hours**
This course introduces basic blueprint reading. Emphasis will be placed on reading and interpreting blueprints found in a manufacturing environment. Topics include: lines and symbols, orthographic drawings, views, material, form and position, title blocks, sketching, features, and sections. If a student scores a “D” or “F” in this course they will not receive the TCC –Technical Certificate of Credit from Savannah Technical College.

**ASTT 1020- Aircraft Blueprint Reading – 3 credit hours**
This course introduces aerospace specific blueprint information which builds on a basic knowledge of blueprint terminology and symbols. Topics included: dimensioning standards and practices, blueprint components, interpretation of reference planes and coordinate systems, engineering numbering and revision system, body/field of the drawing, detail drawings, configurated / method / undimensioned drawings. If a student scores a “D” or “F” in ASTT 1020 AND ASTT 1070 they will not receive the TCC –Technical Certificate of Credit from Savannah Technical College. If a student scores a “D” or “F” in ASTT 1020, they must receive an “A”, “B” or “C” in ASTT 1070, they may still be eligible to receive their TCC – Technical Certificate of Credit from Savannah Technical College.

**ASTT 1030- Structural Fundamentals – 6 credit hours**
Introduces the fundamental concepts required in aerospace structural manufacturing and repair. Emphasis is placed on safety, quality, and precision. Topics include: safety, flat pattern layout, quality standards, fasteners, hand tools, and precision measuring instruments. If a student scores a “D” or “F” in this course they will not receive the TCC –Technical Certificate of Credit from Savannah Technical College.

**ASTT 1070- Aerodynamics – 2 credit hours**
This course presents the theory of flight and aircraft design as it applies to the manufacturing and repair process. Topics include: terminology, theory of flight, structural design, control surfaces, and stress and fatigue. If a student scores a “D” or “F” in ASTT 1070 AND ASTT 1020 they will not receive the TCC –Technical Certificate of Credit from Savannah Technical College. If a student scores a “D” or “F” in ASTT 1070, they must have received an “A”, “B” or “C” in ASTT 1020 in order to still be eligible to receive their TCC – Technical Certificate of Credit from Savannah Technical College.

The Aircraft Assembly Technician Program is a Move On When Ready program through Savannah Technical College.

**Junior or Senior Year - 2 periods (6th and 7th periods)**
Students must be admitted to Savannah Technical College and must have own transportation. Students need to register and take the COMPASS or ACCUPLACER exam. Students do not have a travel period in their schedule.

**Possible Student Pathway Credentialing Opportunities:**
Aircraft Assembly Technician Technical Certificate of Credit (TCC) from Savannah Technical College
This pathway is taught at Effingham College & Career Academy as a Three Year Pathway.

In this pathway, students will learn how to research applicable vehicle and service information, service history, precautions and technical service bulletins. Many basic tasks will be covered such as fluid changes, belt replacement, brake, and tire service. This pathway culminates with the opportunity for students to take the end of pathway assessment in Maintenance and Light Repair offered by the National Institute for Automotive Service Excellence (ASE) in collaboration with National Automotive Technicians Education Foundation (NATEF), Automotive Youth Educational Systems (AYES) and SkillsUSA.

**BASIC MAINTENANCE & LIGHT REPAIR**
Basic Maintenance & Light Repair is the beginning course for the Automobile Maintenance & Light Repair Pathway. Students in this course will learn the basic skills needed to gain employment as a maintenance and light repair technician. Students will be exposed to courses in automotive preventative maintenance and servicing and replacing brakes, and steering and suspension components. The hours completed in the course are aligned to ASE/NATEF standards and are a base for the entry-level technician.

**MAINTENANCE & LIGHT REPAIR 2**
Students will learn the basic skills needed to gain employment as a maintenance and light repair technician and will expose students to automotive preventative maintenance and servicing, as well as replacing brakes, and steering and suspension components. Students will also learn general electrical system diagnosis, electrical theory, basic test requirements, and determining necessary action. In addition, students will learn how to evacuate and recharge air-conditioning systems using proper refrigerant. Standards for this course are aligned with ASE/NATEF standards and are an excellent foundation for the entry-level technician.

**MAINTENANCE & LIGHT REPAIR 3**
Students will learn the basic skills needed to gain employment as a maintenance and light repair technician and will expose students to automotive preventative maintenance and servicing. The standards in this course are aligned to the ASE/NATEF standards and are an excellent foundation for the entry-level technician.

**AUTOMOBILE SERVICE TECHNOLOGY 4 (Optional Course)**
Students in this major will learn the basic skills needed to gain employment as a maintenance and light repair technician. The standards in this course are aligned to the ASE/NATEF standards and are an excellent foundation for the entry-level technician.

Most automotive service technicians and mechanics work in well-ventilated and well-lit repair shops. Although mechanical problems can often be fixed with computers, technicians perform many tasks with greasy parts and tools, while sometimes in uncomfortable positions. Service technicians work on traditional mechanical components, such as engines, transmissions, belts, and hoses. However, they must also be familiar with a growing number of electrosystems. Braking, transmission, and steering systems, for example, are controlled primarily by computers and electronic components. Other integrated electronic systems, such as accident-avoidance sensors, are becoming common as well. In addition, a growing number of technicians are required to work on vehicles that run on alternative fuels, such as ethanol and electricity.

Some employers prefer automotive service technicians and mechanics who have completed a formal training program in a postsecondary institution.

Employment of automotive service technicians and mechanics is expected to grow 17 percent from 2010 to 2020, about as fast as the average for all occupations. Job opportunities for qualified jobseekers should be very good.
Sample Pathway Occupations
See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Average Hourly Rate</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Technician &amp; Mechanics</td>
<td>High School or Registered Apprenticeship</td>
<td>$33,400</td>
<td>$16.06</td>
<td>570</td>
</tr>
<tr>
<td>Mechanical Engineering Technicians</td>
<td>Some College No Degree Required</td>
<td>$47,600</td>
<td>$22.88</td>
<td>10</td>
</tr>
<tr>
<td>Automotive Body &amp; Related Repairers</td>
<td>High School or Registered Apprenticeship</td>
<td>$40,600</td>
<td>$19.52</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**
Automobile Glass Installers & Repairers, Automotive Specialty Technicians, Electrical & Electronics Installers, Engine & Other Machine Assemblers, Master Automotive Service Technicians, Collision Repairers, Small Engine Repairers

**Possible Student Pathway Credentialing Opportunities:**
National Institute for Automotive Service Excellence (ASE) exams
This pathway is taught at Effingham College & Career Academy as a Two Year Pathway.

In this pathway, students can acquire a fundamental understanding of the logistics and supply chain industry. Students learn employability skills needed to make them marketable in a global economy. Students will become familiar with regulatory agencies such as OSHA, EPA, NCR, DOT, and FAA. Logistics and supply chain management topics will include the motor carrier industry, railroad industry, air freight industry and ocean carrier industry as it relates to the movement of materials around the world. This is an in-depth study of the warehousing industry. Topics will include material handling equipment and information technology tools used in warehouse facilities.

**LOGISTICS FUNDAMENTALS**
Employment opportunities in the transportation, distribution and logistics field will be explored. In this course, the student will be exposed to all areas of distribution and logistics.

**LOGISTICS OPERATIONS**
Logistics Operations is the second course in the Distribution & Logistics career pathway. Successful completion of this course along with Logistics Fundamentals will prepare students for the Certified Logistics Associate (CLA) exam. This course will introduce students to global supply chain logistics covering topics, such as the global logistics environment, the importance of planning and logistics strategies, customer service, material handling safety and operations, global supply chain operations, and quality control. Students will be instructed through the use of lecture, guided inquiry, project-based learning, and interviews with industry professionals, authentic learning experiences, teamwork, simulations, and problem solving.

**MATERIALS MANAGEMENT**
Materials Management is the third course in the Distribution & Logistics career pathway. Materials Management is concerned with planning, organizing, and control flow of materials from their initial purchase to destination. Topics include product receiving, proper materials storage, order processing in relation to warehouse operations, packaging materials, inventory control, safe handling of hazardous materials, transportation modes, dispatch, routing and tracking operations. Successful completion of this course will prepare students for the Certified Logistics Technician (CLT) exam.

**TWO-YEAR CTAE PATHWAY**
The Distribution & Logistics Pathway is a two-year CTAE pathway offered at the Effingham College & Career Academy (ECCA). The first year the students will take “Logistics Fundamentals” for two credits at ECCA. During the second year, the students will take “Logistics Operations” in the Fall Semester and take “Materials Management” in the Spring Semester each for one credit.

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 to many and most industries. More specifically, this includes the shipment of raw materials to the manufacturer and movement of finished products to customers. Transportation also includes the movement of parts to assembly areas as they are assembled.

The term “logistics” concerns 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 of the process includes the management of freight, warehousing of materials and productions, inventory management and the packaging of products for storage and shipment.

Individuals can choose different employment options in transportation, distribution or logistics. Career choices range from working at airports to transporting materials between warehouses to calculating material costs, such as a cargo services supervisor. Some transportation, distribution or logistics careers provide on-the-job training, while other careers require a formal education, including an undergraduate degree.
Employment competition will be keen at the management levels while those with less education and training will find employment growing faster than normal.

### Sample Pathway Occupations

See [Georgia’s HOT Careers to 2020](#) for more information on high-skilled, high-wage and high-demand occupations.

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</tr>
</thead>
<tbody>
<tr>
<td>Logistics Managers</td>
<td>Bachelor’s Degree</td>
<td>$68,900</td>
<td>$33.13</td>
<td>130</td>
</tr>
<tr>
<td>Storage &amp; Distribution Managers</td>
<td>Bachelor’s Degree</td>
<td>$77,900</td>
<td>$37.45</td>
<td>179</td>
</tr>
<tr>
<td>Materials Movers</td>
<td>High School</td>
<td>$23,400</td>
<td>$11.25</td>
<td>3520</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

**Related Pathway Occupations:**

Logisticians, Logistic Analysts, Logistics Managers, Storage & Distribution Managers, Laborers and Freight Movers, Packers & Packagers, Logistics Engineers, Transportation Managers, Supply Chain Managers, Expediting Clerks

**Possible Student Pathway Credentialing Opportunities:**

Manufacturing Skill Standards Council (MSSC) Certified Logistics Associate (CLA) & Manufacturing Skill Standards Council (MSSC) Certified Logistics Technician (CLT)
Energy Career Cluster

The United States is a leader in the production and supply of energy and is one of the world’s largest energy consumers. The energy industry is the third largest industry in the United States. U.S. energy companies produce oil, natural gas, coal, nuclear power, renewable energy and electricity services, as well as supply energy and electricity technologies worldwide. Energy and electricity equipment made in the U.S. dominates the domestic market and commands a strong market share abroad. Growing consumer demand and world class innovation – combined with a competitive workforce and supply chain capable of building, installing and servicing all energy technologies – makes the United States the world’s most attractive market.


This pathway is taught at Effingham College & Career Academy as a Three Year Pathway.

FOUNDATIONS OF ENERGY TECHNOLOGIES

This introductory course is designed to allow students to develop a broad understanding of the energy industry including infrastructure, generation, transmission and distribution of nonrenewable, renewable, and inexhaustible energy sources. Energy sources will be researched to include the regional and global economic implications, environmental, and sustainability issues. Students will explore future trends of energy and power. Students will develop, through research, an alternative energy system that will demonstrate their understanding of a unique, as well as appropriate, approach to energy and power generation.

ENERGY AND POWER: GENERATION, TRANSMISSION, AND DISTRIBUTION

Energy and Power: Generation, Transmission, and Distribution is the second course in the Energy Systems pathway. In this course, students will continue to learn about energy and power industry fundamentals by furthering their knowledge regarding electric power generation, transmission and distribution. In addition, the students will gain knowledge about business models, regulations, and safety within the energy industry.

ENERGY SYSTEMS APPLICATIONS

As the third course, Energy Systems Applications explores the relationship between force, work, energy, and power. Students study the characteristics, availability, conversion, control, transmission, and storage of energy and power, as well as examine and apply the principles of electrical, fluid, and mechanical power. Students research renewable, non-renewable, and inexhaustible resources and conservation efforts. Using their course-acquired skills, students will further understand the many careers that exist in energy and related technologies.

<table>
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<tr>
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<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Engineer</td>
<td>Bachelor’s Degree</td>
<td>$86,300</td>
<td>$41.49</td>
<td>120</td>
</tr>
<tr>
<td>Industrial Production Managers</td>
<td>Bachelor’s Degree</td>
<td>$76,200</td>
<td>$36.63</td>
<td>130</td>
</tr>
<tr>
<td>Equipment, Cable, Line Repairers/Installers</td>
<td>Some College</td>
<td>$53,100</td>
<td>$25.53</td>
<td>180</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

Sample Pathway Occupations

See Georgia’s HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.
Related Pathway Occupations:
Telecommunication Technicians, Equipment, Cable, Line Repairers/Installers, Electricians, Electronics Technicians
Power Plant Operators, Electronics Engineering Technicians, Engineering Technicians

Possible Student Pathway Credentialing Opportunities:
Students completing a pathway are eligible to take a Credentialing/End of Pathway Assessment (EOPA) upon successful completion of the three required courses in the pathway. For specific assessment information, refer to http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/CTAE-Georgia-Assessments.aspx
**What is Move On When Ready?**

Move On When Ready allows students 16 years and older to take courses for high school and college credit. Students must meet enrollment requirements of the college and also be a current student at Effingham County High School or South Effingham High School. Currently, Move On When Ready courses that will be offered with Savannah Technical College are in the areas of Criminal Justice, Cosmetology, Welding and Aircraft Assembly Technician. Students who pursue Move On When Ready opportunities should understand that additional course work may be required beyond graduation in order to earn the technical certificate of credit. Students will be required to abide by the Technical College’s Academic Calendar and Attendance Policy, both of which may differ significantly from the high school calendar and attendance policy. Involvement in certain athletic sports may limit participation in Move On When Ready. Should additional offerings be made available, students will be notified. Please see your counselor for more information.

**What is Work-Based Learning (WBL)?**

This is for students 16 years or older. This program allows students to receive high school credit while developing skills in the workplace. Students do not have to have employment prior to entering this program; however, the student should have a job in his/her program concentration area to participate. Work Based Learning opportunities include internships, co-ops, clinicals, and youth apprenticeships. Students interested in work-based learning should see the Work-Based Learning Coordinator for an application, additional information, and regulations. Students enrolling in this program must possess a valid driver’s license and have their own personal transportation. If you have questions it is best to refer the student to the Work-Based Learning (WBL) Coordinator or the CTAE Supervisor.

**ECHS WBL Coordinator** – Ms. Sherry Duff (912)754-6404

**SEHS WBL Coordinator** – Ms. Becky Truluck (912)728-7511

The Effingham County Board of Education offers career and technical education programs. These programs are designed to prepare youth for a broad range of employment and further education and are being offered under the guidance of certified teachers. All career and technical education programs follow the system’s policies of nondiscrimination on the basis of race, color, religion, national origin, sex, age, and disability in all programs, services, activities, and employment. In addition, arrangements can be made to ensure that the lack of English language proficiency is not a barrier to admissions or participation. Persons seeking further information concerning the career and technical education offerings and specific pre-requisite criteria should contact:

Mr. Ashley Kieffer
Effingham College and Career Academy
2940 Hwy 21 South
Rincon, GA 31326
912-754-5610 or akieffer@effingham.k12.ga.us
This notice is provided as required by Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. Questions, complaints, or requests for additional information regarding these laws may be forwarded to the designated compliance coordinator: Dr. Slade Helmly.