

Career, Technical and Agriculture Education

Some CTAE courses may count as a fourth science credit and/or an academic elective. Check with your counselor and the GA Department of Education website to determine if the course selected meets the science/academic elective criteria.

Fourth science options

The following are Career Pathways offered at the individual high schools in Oconee County. A student must complete the sequence of courses listed in a given pathway in order to be a pathway completer. Students are also encouraged to participate in the associated Career/Technical Student Organization (CTSO) associated with the Career Cluster of interest. The CTSOs are listed below each Career Cluster.

N=North Oconee High School; O=Oconee County High School

Agriculture, Food, and Natural Resources Career Cluster

Career/Technical Student Organization



◇ **Agriculture Leadership in Animal Production Pathway (N, O)**

02.47100—Basic Agricultural Science
02.42100—Animal Science Technology/Biotech. (offered every other year at OC)
01.41200—Agribusiness Management and Leadership

◇ **Agriculture Leadership in Forestry Pathway (N)**

02.47100—Basic Agricultural Science
01.41200—Agribusiness Management and Leadership
03.45100—Forest Science (offered every other year)

◇ **Forestry/Wildlife Systems Pathway (N)**

02.47100—Basic Agricultural Science
03.45100—Forest Science (offered every other year)
03.45300—Wildlife Management (offered every other year)

◇ **Animal/Mechanical Systems Pathway (O)**

02.47100 – Basic Agricultural Science
01.42100 – Agricultural Mechanics Technology I
01.43200 – Agricultural Animal Production and Management (offered every other year)

◇ **Agriculture Leadership in Horticulture Pathway (N)**

02.47100—Basic Agricultural Science
01.46100 – General Horticulture and Plant Science (offered every other year)
01.41200—Agribusiness Management and Leadership

◇ **Plant and Landscape Systems Pathway (N)**

02.47100—Basic Agricultural Science
01.46100—General Horticulture and Plant Science (offered every other year)
01.470000—Nursery and Landscape (offered every other year)

◇ **Agricultural Mechanics Systems Pathway (O)**

02.47100—Basic Agricultural Science
01.42100—Agricultural Mechanics Technology I
01.42200—Agricultural Mechanics Technology II

◇ **Forestry & Animal Science Pathway (N)**

02.47100—Basic Agricultural Science
03.45100—Forest Science (offered every other year)
02.42100—Animal Science Technology/Biotechnology

◇ **Food Animal Systems Pathway (O)**

02.47100—Basic Agricultural Science
02.42100—Animal Science Technology/Biotech. (offered every other year at OC)
01.43200 – Agricultural Animal Production and Management (offered every other year)

Arts, A/V Technology, and Communication Career Cluster

Career/Technical Student Organization



- ◇ **Graphic Design Pathway (N)**
48.56100—Introduction to Graphics & Design
48.46200—Graphic Design & Production
48.52800—Advanced Graphic Design

Business, Management, and Administration Career Cluster

Career/Technical Student Organization



- ◇ **Entrepreneurship (N)**
07.44130—Introduction to Business & Technology
06.41500—Legal Environment of Business
06.41610—Entrepreneurship

Education and Training Career Cluster

Career/Technical Student Organization



- ◇ **Early Childhood Care and Education Pathway II (N, O)**
20.52810—Early Childhood Education I
20.42400—Early Childhood Education II
20.42600—Early Childhood Education Practicum

Finance Career Cluster

Career/Technical Student Organization



- ◇ **Business Accounting Pathway (O)**
07.44130—Introduction to Business & Technology
07.42600—Financial Literacy
07.41100—Principles of Accounting I

Health Science Career Cluster

Career/Technical Student Organization



- ◇ **Therapeutic Services/Emergency Medical Responder (N)**
25.52100—Introduction to Healthcare Science
25.44000—Essentials of Healthcare
25.45000—Emergency Medical Responder
- ◇ **Therapeutic Services/Allied Health & Medicine Pathway (N, O)**
25.52100—Introduction to Healthcare Science
25.44000—Essentials of Healthcare
25.43700—Allied Health and Medicine
- ◇ **Biotechnology Research and Development (O)**
25.52100—Introduction to Healthcare Science
25.57000 – Essentials of Biotechnology
25.56900 – Applications of Biotechnology

Information Technology Career Cluster

Career/Technical Student Organization



- ◇ **Web Development Pathway (N)**
11.41500—Introduction to Digital Technology
11.47100 - Computer Science Principles OR
11.01900 - Advanced Placement Computer Science Principles
11.42500—Web Development
- ◇ **Computer Science Pathway (N, O)**
11.41500 - Introduction to Digital Technology
11.47100 - Computer Science Principles OR
11.01900 - Advanced Placement Computer Science Principles
11.01600 - Advanced Placement Computer Science

Marketing Career Cluster

Career/Technical Student Organization



- ◇ **Marketing & Management Pathway (O)**
08.47400—Marketing Principles
08.44100—Marketing and Entrepreneurship
08.44200—Marketing Management

Science, Technology, Engineering, and Mathematics Career Cluster

Career/Technical Student Organization



- ◇ **Engineering and Technology Pathway (N, O)**
21.42500 – Foundations of Engineering and Technology
21.47100 – Engineering Concepts
21.47200 – Engineering Applications

OCS Career Related Education (Work-Based Learning Opportunities)

What is Career Related Education?

Career Related Education is an umbrella of activities designed to facilitate the transition from school to career. These activities include Career Awareness, Career Exploration, Instructional Activities, Connecting Activities and finally culminating in a work-based learning experience when appropriate.

Work-Based Learning Opportunities

The Work Based Learning program in Oconee County is designed for juniors and seniors who have a specific career focus or an interest in a particular career pathway. Students go to school for part of the day and for the remainder of the day, students work at an approved work-site. This program will give students the opportunity to work alongside professionals in their chosen career field. Students are required to provide their own transportation to and from the worksite and work under the supervision of a workplace mentor as well as the school's School-to-Career coordinator and facilitator.

The following Work-Based Learning options are available to students in Oconee County:

Job Shadowing

During a job shadow experience, an individual follows an employee at their workplace anywhere from a few hours to a couple of days. The individual experiences real day-to-day work in a specific occupation or industry. Participants can see tasks being performed and the knowledge and skills required to perform those tasks. Students typically job shadow late in middle school or early in high school.

Internships

An internship is a short-term or long-term experience where an individual works under supervision in an occupation to gain practical skills and experience in a particular field of study. Internships can occur only after a student has completed coursework related to the placement. Individuals can acquire new skills through an internship or investigate different aspects of an industry. Internships can be both paid and unpaid experiences.

Cooperative Work Experience

A cooperative work experience is a paid opportunity for students to complete while they are simultaneously enrolled in a course directly related to the job placement. The experience offers services and activities to help develop occupational and workplace skills in a paid work environment. This experience is unique in that the student is applying all competencies learned in the classroom to his/her current WBL site.

Youth Apprenticeship

An apprenticeship is a partnership between students, business, and postsecondary in which the student agrees to work (paid or unpaid position) in exchange for instruction to gain skills necessary to work successfully in a highly skilled occupation. Apprenticeship students are career focused and are assigned to a workplace mentor. Apprentices agree to a minimum of 720 hours of on-the-job training and completion of a postsecondary credential from a postsecondary institution or employer. These 720 hours are often completed after a student has graduated from high school. Youth Apprenticeship is usually of a longer duration and requires communication and contact beyond high school graduation.

Class Credit for Work-Based Learning

Credit is issued for 1.0, 2.0, and 3.0 Carnegie units per semester based on the individual student's assessed performance. Generally, the amount of work release time has a bearing on the total credit that can be earned:

- 1 block of release time** Minimum of 7.5 hours week **1.0 unit**
- 2 blocks of release time** Minimum of 15 hours week **2.0 units**
- 3 blocks of release time** Minimum of 22.5 hours week **3.0 units**

In order to be considered for the Work-Based Learning program, students must first inform their counselor of their interest and meet the following requirements:

- Two or more courses taken within a specific Career Pathway
- Completed application for enrollment
- 90% Attendance Record
- Acceptable Discipline Record
- Overall 80% or better numerical grade average
- Three Letters of Recommendation
- Interview with program coordinator
- Approval of School-to-Career Coordinator

Additionally, student workers must:

- Progress successfully through an approved training plan
- Receive positive evaluations for job performance and work ethics
- Complete assignments required by the coordinator related to program and career experiences
- Comply with all the rules and regulations dictated by the program

Once approved, students must:

- Be selected and hired by an employer/mentor
- Meet weekly work-hour requirement with documentation records
- Maintain acceptable academic, attendance, and discipline record
- Maintain acceptable work-site performance
- Complete Work-Based Learning assignments
- Be committed to postsecondary education guidance
- Maintain communication with coordinator throughout participation

Move On When Ready

MOWR Program Information

The Move On When Ready (MOWR) program provides for students who are dual credit enrolled at a participating eligible public or private high school, or home study program in Georgia, and a participating eligible postsecondary institution in Georgia. These students take postsecondary coursework for credit towards both high school graduation or home study completion and postsecondary requirements. Beginning with Fall term 2015 (FY 2016) the program is offered during all terms of the school year; fall, spring and summer semester or fall, winter, spring, and summer quarter.-

Additional information regarding Move On When Ready can be found at the following link: [Move On When Ready](#)

Articulated Credit

High school students enrolled in secondary institutions with which a Technical College has articulation agreements are eligible for credit by examination and/or performance assessment which results in joint review and course articulation.

High school students may seek credit for both statewide and locally articulated courses. Students who achieve minimum grades of 70 in the related courses at the high school level are eligible to attempt to earn Technical College credit by examinations. Those who make grades of C (70) or higher on the exemption examinations may receive college credit for the courses.

Students should talk with their counselors and CTAE teachers to learn what courses may be articulated and how to sign up for exemption exams during their junior or senior year

CTAE Course Descriptions

The following are course descriptions of courses that have been approved to teach in Oconee County Schools. Courses listed may or may not be taught each year. To know the courses that will be taught in a given year, refer to the course offering list for each high school in Oconee County. The course offering lists are located on the individual high schools registration websites.

Course Number	Course Name	Grade Level	Course Description	Prerequisites	Who Signs for Course
02.47100	Basic Agriculture Science	9-12	This course is designed as the foundational course for all Agriculture, Food & Natural Resources pathways. It 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 agriculture pathways and is intended for students in grades 9-10.	None	Agriculture teacher
02.42100	Animal Science Tech/Biotech	10-12	This course introduces students to the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products. Introduces scientific principles applied to the animal industry; covers reproduction,	Successful completion of Biology	Agriculture teacher

			production technology, processing, and distribution of agricultural animal products. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.		
01.43200	Agricultural Animal Production and Management	10-12	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.	Basic Agriculture Science and Technology and Animal Science recommended	Agriculture teacher
02.42200	Equine Science	10-12	This course introduces scientific principles and technical skills in caring for horses; covers history; breeds, types and classes; anatomy, biomechanics and movement; selection and judging; genetics, reproduction, digestion and nutrition; health and behavior management and buildings and facilities. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities of the FFA.	Basic Agriculture Science and Technology and Animal Science recommended	Agriculture teacher
01.46100	General Horticulture and Plant Science	9-12	This 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.	Basic Agriculture Science and Technology recommended	Agriculture teacher
01.47000	Nursery and Landscape	10-12	This course is designed to provide students with the basic skills and knowledge utilized by the green industry in nursery production and management and landscape design and management. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.	Basic Agriculture Science and Technology and General Horticulture recommended	Agriculture teacher
01.42100	Agriculture Mechanics Technology I	10-12	This laboratory course is designed to provide students with introductory level experiences in selected major areas of agricultural mechanics technology which may include small engine maintenance and repair, metal fabrication, woodworking, electrical wiring, and maintenance of agricultural machinery, equipment, and tractors. Learning activities include information, skill	Basic Agriculture Science and Technology recommended	Agriculture teacher

			development, and problem solving. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.		
01.42200	Agriculture Mechanics Technology II	10-12	The goal of this laboratory course is 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, soil and water conservation, and maintenance of agricultural machinery, equipment and tractors. Learning activities include information, skill development, and problem solving. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.	Basic Agriculture Science and Technology recommended	Agriculture teacher
03.45100	Forest Science	9-12	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.	Basic Agriculture Science and Technology recommended	Agriculture teacher
03.45300	Wildlife Management	10-12	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.	Basic Agriculture Science and Technology recommended	Agriculture teacher
03.41100	Natural Resources Management	10-12	This course introduces conservation management and maintenance of natural resources and good stewardship of air, soil, water, land, fish, and wildlife resources for economic, recreation, and health purposes. Classroom and	Basic Agriculture Science and	Agriculture teacher

			laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.	Technology recommended	
01.41200	Agribusiness Management and Leadership (AG-AML)	10 - 12	The Agribusiness Management and Leadership course provides a foundation for students interested in pursuing a degree in agribusiness through post-secondary study or to enter the agribusiness industry upon graduation from high school. The student will demonstrate competence in the application of principles and practices of agribusiness management and leadership. The course will help students build a strong knowledge base of the agribusiness industry as they study agribusiness types, business management, financial analysis, communications, agricultural law, leadership and teamwork, ethics, and agricultural economics. Mastery of these standards through project-based learning and leadership development activities in the FFA and supervised agricultural experience program will help prepare students for post-secondary study or entry into agribusiness.	Basic Agriculture Science and Technology recommended	Agriculture Teachers
48.54500	Architectural Drawing and Design I	10-12	Introduces students to the basic terminology, concepts, and principles of architectural design. Emphasis is placed on house designs, floor plans, roof designs, elevations (interior and exterior), schedules, and foundations. The standards are aligned with the drafting and design standards in Georgia's technical colleges, thus helping students qualify for advanced placement should they continue their education at the postsecondary level.	Intro to Engineering, Drawing, and Design	Drafting teacher
48.54600	Architectural Drawing and Design II	11-12	Emphasis is placed on schedules, plumbing, heating and air, graphic presentations, plot/site plans, specifications, and building estimations. While the term computer-aided design (CAD) does not appear in each competency, CAD tools and software should be used extensively throughout the course. The standards are aligned with the drafting and design standards in Georgia's technical colleges, thus helping students qualify for advanced placement should they continue their education at the postsecondary level. Further, the standards are aligned with the national standards of the American Design Drafting Association (ADDA). Students who successfully complete this and other drafting courses should be prepared to take the Drafter Certification Examination from the ADDA.	Arch. Drawing & Design I	Drafting teacher

48.56100	Introduction to Graphics and Design	9-12	This course is designed as the foundational course for both the Graphics Production and Graphics Design pathways. The Graphics and Design course provides students with the processes involved in the technologies of printing, publishing, packaging, electronic imaging, and their allied industries. In addition, the Graphics and Design course offers a range of cognitive skills, aesthetics, and crafts that includes typography, visual arts, and page layout.	None	Graphics teacher
48.56200	Graphic Design and Production	10-12	This course focuses on the procedures commonly used in the graphic communication and design industries. Students will gain experience in creative problem solving and the practical implementation of those solutions across multiple areas of graphic communications.	Introduction to Graphics and Design	Graphics teacher
48.52800	Advanced Graphic Design	10-12	Students will continue to explore the principles of design and layout procedures as they relate to graphic design. Content will cover electronic systems and software programs used in graphic design, page composition, image conversion, and digital printing. Knowledge and skills in digital design and imaging will be enhanced through experiences that simulate the graphic design industry and school-based and work-based learning opportunities.	Graphic Design and Production	Graphics teacher
07.44130	Introduction to Business and Technology	9-12	Introduction to Business & Technology is the foundational course for Business & Technology, Entrepreneurship, and Human Resources Management pathways. The course is designed for high school students as a gateway to the career pathways above, and provides 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. Students will learn essentials for working in a business environment, managing a business, and owning a business. The intention of this course is to prepare students to be successful both personally and professionally in an information-based society. 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.	None	Business Education teacher

07.42600	Financial Literacy	9-12	<p>Students need to be informed about their financial responsibilities today and to prepare for the real choices ahead. In this course they will learn about career decisions, money management, financial security, credit management, resource management, risk management, and consumer rights and responsibilities.</p> <p>Business partnerships with financial companies, guest speakers, field trips, and work-based learning activities can be incorporated in this course. Mastery of these standards through project-based learning and leadership development activities of Future Business Leaders of America (FBLA) will help prepare students with a competitive edge for the global marketplace.</p>	Introduction to Business Technology	Business Education teacher
07.41100	Principles of Accounting I	10-12	<p>Students perform accounting activities for sole proprietorships and corporations following generally accepted accounting procedures. Students analyze business transactions and financial statements, perform payroll, examine the global perspective of accounting, and evaluate the effects of transactions on the economic health of a business.</p>	None	Business Education teacher
06.41500	Legal Environment of Business	10-12	<p>Legal Environment of Business addresses statutes and regulations affecting businesses, families, and individuals. All students will benefit with the knowledge of business law as they will eventually assume roles as citizens, workers, and consumers in their communities and in society at large.</p> <p>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 the government in business. Students will not only understand the concepts, but will also apply their knowledge to situations and defend their actions, decisions, and choices.</p> <p>Various forms of technologies will be highlighted to expose students to the emerging technologies impacting the business world. Professional communication skills and practices, problem-solving, ethical and legal issues, and the impact of effective presentation skills are expanded in this course to prepare students to be college and career ready. Employability skills are integrated into activities, tasks, and projects throughout this course to demonstrate skills required by business and industry.</p>	Introduction to Business & Technology	Business Education teacher

06.41610	Entrepreneurship	10-12	<p>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 individuals 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. Working to develop a business plan that includes structuring the organization, financing the organization, and managing information, operations, marketing, and human resources will be a focus in the course. Engaging students in the creation and management of a business and the challenges of being a small business owner will be fulfilled in this course.</p> <p>Various forms of technologies will be used to expose students to resources and application of business principles for starting, operating and maintaining a business. 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.</p>	Legal Environment of Business	Business Education teacher
11.41500	Introduction to Digital Technology	9-12	<p>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.</p> <p>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.</p>	None	Business Education teacher

11.45100	Digital Design	10-12	This course will provide students with essential web page planning and development skills. Students will learn to write code manually and use graphical authoring tools. Students will also learn to work with web page layout and graphical elements, including images, hyperlinks, tables, forms, and frames.	Introduction to Digital Technology recommended	Business Education teacher
11.47100	Computer Science Principles	10-12	Meets fourth science requirement or fourth mathematics or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses. This course emphasizes the content, practices, thinking and skills central to the disciplines of computer science. Through both its content 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.		
11.42500	Web Development	10-12	Meets fourth science requirement or fourth mathematics or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses. The goal of this course is to provide students with the study of advanced topics in web design. Upon completion of this course, students should have a thorough knowledge of all areas of web page design. Topics include the web development process, advanced layout and design features, advanced study of scripting languages, site development with HTML editors, and web servers and databases.	Computer Science Principles	
11.01600	Advanced Placement Computer Science A	10-12	Meets fourth science or fourth mathematics or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses. Advanced Placement Computer Science A is an introductory course in computer science. A large part of the course is built around the development of computer programs or parts of programs that correctly solve a given problem. The course also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. Other topics to be studied include the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition, an understanding of the basic hardware	Successful completion of Computer Science Principles or AP Computer Science Principles	Most recent Math, Science, CTAE Business, or CS Pathway teacher

			and software components of computer systems and the responsible use of these systems are integral parts of the course. Students taking this course are required to take the AP Exam in May. This course meets the HOPE Rigor requirement.		
11.01900	AP Computer Science Principles	10 - 12	<p>Meets fourth science or fourth mathematics or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses.</p> <p>Advanced Placement Computer Science Principles emphasizes the content, practices, thinking and skills central to the discipline of computer science. 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. Course meets fourth science, or fourth mathematics, or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequential foreign language courses.</p>	Successful completion of Computer Science Principles or AP Computer Science Principles	Most recent Math, Science, CTAE Business, or CS Pathway teacher
20.52810	Early Childhood Education I	9-12	The Early Childhood Education I course is the foundational course under the Early Childhood Care & Education pathway and 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.	Application process	Family and Consumer Sciences teacher
20.42400	Early Childhood Education II	11-12	<p>Early Childhood Education II is the second course in the Early Childhood Care and Education pathway and further prepares the student for employment in early childhood care and education services. The course provides 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 and 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.</p> <p>Mastery of standards through project based learning, laboratory application, technical skills practice, and leadership development activities of the career and technical student organizations will provide students with a competitive edge for either entry into the education global marketplace and/or the post-</p>	ECE I	Family and Consumer Sciences teacher

			secondary institution of their choice when continuing their education and training.		
20.42600	Early Childhood Education Practicum	11-12	The practicum offers a candidate in the Early Childhood Education career pathway a field experience under the direct supervision of a certified early childhood educator (mentor). This field experience may be used as partial requirements for the candidate to earn the nationally recognized CDA credential. The practicum stresses observing, analyzing, and classifying activities of the mentor and comparing personal traits with those of successful early childhood educators. 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, meet the needs of students with special needs, maintain the safety of the students, practice professionalism, and demonstrate ethical behavior.	ECE II; application process	Family and Consumer Sciences teacher
20.41810	Food Science	10-12	Food science integrates many branches of science and relies on the application of the rapid advances in technology to expand and improve the food supply. Students will evaluate the effects of processing, preparation, and storage on the quality, safety, wholesomeness, and nutritive value of foods. Building on information learned in Nutrition and Wellness and Chemistry, this course illustrates scientific principles in an applied context, exposing students to the wonders of the scientific world.	Food and Nutrition Throughout the Lifespan	Family and Consumer Sciences teacher
21.42500	Foundations of Engineering and Technology	9-12	Foundations of Engineering and Technology is the introductory course for all Georgia Engineering and Technology Education pathways. This course provides students with opportunities to develop fundamental technological literacy as they learn about the history, systems, and processes of invention and innovation.	None	Engineering teacher
21.47100	Engineering Concepts	9-12	Engineering Concepts is second course in the engineering pathway. This course introduces students to the fundamental principles of engineering. Students learn about areas of specialization within engineering and engineering design, and apply engineering tools and procedures as they complete hands-on instructional activities.	Successful Completion of Foundations of Engineering and Tech.	Engineering teacher
21.47200	Engineering Applications	10-12	Engineering Applications is the third course in the engineering pathway. Students have opportunities to apply engineering design as they develop a	Successful Completion of	Engineering teacher

			<p>solution for a technological problem. Students use applications of mathematics and science to predict the success of an engineered solution and complete hands-on activities with tools, materials, and processes as they develop a working drawings and prototypes.</p>	Engineering Concepts	
25.52100	Introduction to Healthcare Science	9-12	<p>Introduction to Healthcare Science is the foundational and prerequisite course for all Health Science pathways. This course is appropriate for students wishing to pursue a career in the Healthcare Industry. The course will enable students to receive initial exposure to Healthcare Science careers as well as employability and communication skills necessary in the healthcare industry. The concepts of human growth and development, health, wellness, and preventative care are evaluated, as well as, legal, ethical and technology responsibilities of today's healthcare provider. Fundamental healthcare skills development is initiated including microbiology, basic life support and first aid.</p> <p>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) and Center for Disease Control (CDC).</p> <p>* Students will complete Part I of e-portfolio for Athens Tech College 3 hr. credit</p>	None	Healthcare Science teacher
25.44000	Essentials of Healthcare	10-12	<p>Anatomy and Physiology is a vital part of most healthcare post-secondary education programs. 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. This course provides an opportunity to demonstrate technical skills that enforce the goal of helping students make connections between medical procedures and the pathophysiology of diseases and disorders.</p> <p>* Students will receive a second course credit in Human Anatomy and Physiology upon successful completion of Essentials of Healthcare Science. The Human Anatomy and Physiology credit will count as an academic</p>	Introduction to Healthcare Science	Healthcare Science teacher

			course and the student will receive the same grade he or she made in Essentials of Healthcare.		
25.43700	Allied Health and Medicine	10-12	<p>This 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.</p> <p>* Students will finalize e-portfolio to receive Athens Tech College 3 hr. credit.</p>	Essentials of Healthcare	Healthcare Science teacher
25.45000	Emergency Medical Responder	11-12	<p>The Emergency Medical Responder (EMR) course prepares the student to provide initial stabilizing care to the sick or injured prior to the arrival of Emergency Medical Services Professionals (EMS), and to assist EMS personnel in transporting patients for definitive care at an appropriate hospital/facility. Major areas of instruction include Introductory Medical Terminology and Anatomy & Physiology; Responder Safety; Incident Command; Blood-borne Pathogen Training; Basic Physical Assessment; and Treatment of Trauma and Medical Emergencies; Cardiopulmonary Resuscitation and the use of Automatic External Defibrillators (AEDs). The course is a blend of lecture, hands on lab/learning, and practical scenario-based learning/testing.</p> <p>The course will include Healthcare Provider CPR/AED Certification from a Nationally-Recognized Body (American Heart Association or Red Cross, etc.). If this course is also approved by the Georgia State Office of Emergency Medical Services and Trauma (SOEMST), successful completion will allow the student to be eligible to take the National Registry of Emergency Medical Technicians (NREMT) Emergency Medical Responder (EMR) certification. Topics include: Preparatory; Anatomy and Physiology; Medical Terminology; Pathophysiology; Life Span Development; Public Health; Pharmacology; Airway; Management; Respiration and Artificial Ventilation; Assessment; Medicine; Shock and Resuscitation; Trauma; Special Patient Populations; EMS Operations; and Integration of Patient Assessment and Management.</p>	Essentials of Healthcare	Healthcare Science teacher

25.57000	Essentials of Biotechnology	10-12	This is the second course in the career pathway that introduces students to the broad understanding of the fundamentals of biotechnology and the impact on society. The knowledge and skills in this course provides a basic overview of current trends and careers in biotechnology, with an emphasis on basic laboratory skills, along with the business, regulatory, and ethical aspects of biotechnology. The prerequisite for the course is Introduction to Healthcare Science Technology.	Intro to Healthcare Science	Healthcare or Science teacher
25.56900	Applications of Biotechnology HS-ABT	10-12	This course further introduces students to the fundamentals of biotechnology. Included in this course are additional techniques in biotechnology. Additionally, a deeper level of laboratory safety and applications in biotechnology is emphasized. The knowledge and skills gained in this course will provide students with a greater understanding of biotechnology and prepare students for skill application in a workplace setting.	Essentials of Biotechnology	Healthcare or Science teacher
08.47400	Marketing Principles	9-12	Marketing Principles is the foundational course for the Marketing and Management, Fashion Merchandising and Buying, Sports and Entertainment marketing, and Marketing Communications and Promotion Pathways. Marketing Principles addresses all the ways in which marketing satisfies consumer and business needs and wants for products and services. Students develop a basic understanding of Employability, Foundational and Business Administration skills, Economics, Entrepreneurship, Financial Analysis, Human Resources Management, Information Management, Marketing, Operations, Professional Development, Strategic Management, and Global Marketing strategies.	None	Marketing teacher
08.44100	Marketing and Entrepreneurship	10-12	Marketing and Entrepreneurship is the second course in the Marketing and Management Career Pathway. Marketing and Entrepreneurship begins an in-depth and detailed study of marketing while also focusing on management with specific emphasis on small business ownership. This course builds on the theories learned in Marketing Principles by providing practical application scenarios which test these theories. In addition, Marketing and Entrepreneurship focuses on the role of the supervisor and examines the qualities needed to be successful. In order to increase the number of application experiences, students should participate in (1) Work-Based Learning (WBL) activities in the classroom and	Successful completion of Marketing Principles	Marketing teacher

			possibly in a formal WBL Program; (2) DECA Career and Technical Student Organization competitive events that are directly aligned with course standards and (3) a School-Based Enterprise.		
08.44200	Marketing Management	11-12	<p>Marketing Management is the third course in the Marketing and Management pathway. Students assume a managerial perspective by applying economic principles in marketing, analyzing operation's needs, examining channel management and financial alternatives, managing marketing information, pricing products and services, developing product/service planning strategies, promoting products and services, purchasing, and professional sales. This course also includes global marketing where students analyze marketing strategies employed in the United States versus those employed in other countries.</p> <p>In order to increase the number of application experiences, students should participate in (1) Work-Based Learning (WBL) activities in the classroom and perhaps in a formal WBL Program; (2) DECA Career Technical Student Organization (CTSO) competitive events that are directly aligned with course standards and (3) a School-Based Enterprise. The prerequisite for this course is Marketing and Entrepreneurship.</p>	Successful completion of Entrepreneurship	Marketing teacher
	Work-Based Learning	11-12	See Career Related Education	Application process and WBL Coordinator approval	Amy Frutiger, WBL Coordinator