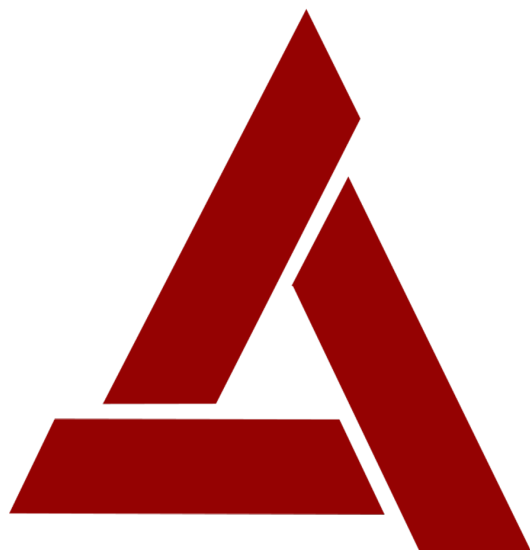




ACADEMIES
of ALBERTVILLE

2022- 2023 Career Technical Education Curriculum Handbook

Albertville City Schools' Career and Technical Education pathways provide students opportunities to engage in rigorous career relevant coursework utilizing state of the art technology, real-world opportunities, and project-based instruction to prepare students for high-wage, high- skill, and high demand careers. Students can earn industry certifications as well as dual enrollment and articulated college credits. These programs, several of which have earned national and international recognition, prepare students to be both college and career ready by integrating core academic skills with employability skills and current industry specific technology.



ACADEMIES
of ALBERTVILLE

Executive Director, J Todd Watkins
Career Technical Administrator, Torrey Croft
Career Technical Counselor, Amanda Pilotte
Career Technical COOP, Beth Todd
Career Coach, Lyndsey Beck
Subject to revision

ALABAMA HIGH SCHOOL GRADUATION REQUIREMENTS

Course Requirements	
ENGLISH LANGUAGE ARTS – TOTAL OF FOUR CREDITS	
Four credits to include:	Credits
English 9	1
English 10	1
English 11	1
English 12	1
English Language Arts-credit eligible options may include: Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses	
MATHEMATICS – TOTAL OF FOUR CREDITS	
Three credits to include:	Credits
Geometry with Data Analysis	1
Algebra I with Probability (7th&8th Grade Accelerated satisfies the requirement but not credit)	1 or 0
Algebra II with Statistics	1
One or two credits from:	
Specialized Courses: Precalculus; Mathematical Modeling; Applications of Finite Mathematics	1 or 2
Mathematics-credit eligible courses from Career and Technical Education / Advanced Placement / International Baccalaureate / postsecondary courses / SDE-approved courses	
SCIENCE – TOTAL OF FOUR CREDITS	
Two credits to include:	Credits
Biology	1
A Physical Science (Chemistry, Physics, Physical Science)	1
Science-credit eligible options may include: Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses	
Two credits from:	
Science or science-credit eligible courses from Career and Technical Education/Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses	2
SOCIAL STUDIES – TOTAL OF FOUR CREDITS	
Four credits to include:	Credits
World History	1
United States History I	1
United States History II	1
Government	0.5
Economics	0.5
Social Studies-credit eligible options may include: Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses	
Civics Test Requirement - Students are required to pass the Civics Test in the United States Government class effective the 2018-2019 school year.	
Other Required Courses – total of eight credits	
Physical Education - Beginning Kinesiology or JROTC credit	1
Health Education	0.5
Career Preparedness	1
Career and Technical Education (CTE) and/or Foreign Language and/or Arts Education	3
Electives	2.5
TOTAL CREDITS 24	

Albertville City Schools Career and Technical Education Courses

Additive Manufacturing			
Course	Course #	Grade	Credit
Introduction to Drafting Design	21106G1013	9	1.0
Intermediate to Drafting Design	21106G1023	10	1.0
3D Solid Model Design I	21107G1012	11	1.0
3D Solid Model Design II	21107G1022	12	1.0
Career Pathway Project in Manufacturing	13997G1003	12	1.0
Aggie Vision: Advertisement Design Pathway			
Course	Course #	Grade	Credit
Foundations of Arts, Audio-Video Technology and Communication	11990G1001	9	1.0
Digital Design	12165G1012	10	1.0
Graphic Illustration	12165G1022	11	1.0
Studio and Portfolio and	12165G1001	12	1.0
Senior Career Pathway Project-Arts, A/V, Tech and Communications	11197G1001	12	1.0
Agri Sciences Pathway: Animal Science			
Course	Course #	Grade	Credit
Fundamentals of Agriscience	18003G1001	9	1.0
Intro to Veterinary Science	18105G1012	10	1.0
Agrobiology (3rd and/or 4th Science Credit Eligible)	18004G1001	11	1.0
Veterinary Science and	18105G1022	12	1.0
Career Pathway Project in AFNR	18998G1000	12	1.0
Agri Sciences Pathway: Building and Construction			
Course	Course #	Grade	Credit
Fundamental of Agriscience	18003G1001	9	1.0
Introduction to Agricultural Construction	18403G1000	10	1.0
Construction Framing	18004G1001	11	1.0
Construction Finishing and Interior Systems and	18011G1000	12	
Career Pathway Project in AFNR	18998G1000	12	1.0
Agri Sciences Pathway: Plant Science			
Course	Course #	Grade	Credit
Fundamentals of Agriscience	18003G1001	9	1.0
Greenhouse & Nursery Production	18052G1002	10	1.0
Plant Biotechnology (3rd and/or 4th Science Credit Eligible)	18308G1002	11	1.0
Landscape Design & Management and/or	18056G1001	12	1.0
Career Pathway Project in AFNR	18998G1000	12	1.0
Business Information Technology Pathway			
Course	Course #	Grade	Credit
Business Software Applications I	1005G1001	9	1.0
Business Software Applications II	1005G1002	10	1.0
Digital Media Design	11153G1001	10/11	1.0
Digital Publications Design	11153G1002	11	1.0
Mobile Application Development	10206G1001	11	1.0
Computer Game & Simulation Programming	10205G1001	12	1.0
Career Pathway Project-Business Management & Administration	12047G1001	12	1.0
Computer Science Pathway			
Course	Course #	Grade	Credit

Information Technology Fundamentals	10001G1000	9	1.0
Exploring Computer Science (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible)	10012G1001	10	1.0
Computer Science Principles, AP (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible) or	10019E1000	11	1.0
Intro. to Digital Literacy & Computer Science (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible)	10011G1000	11	1.0
Computer Science A, AP (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible) and	10157E1000	12	1.0
Senior Career Pathway Project-Information Technology	10997G1001	12	1.0
Cooperative Education			
Course	Course #	Grade	Credit
Cooperative Education/Work-Based Learning I First Credit	22998G1014	11-12	1.0
Cooperative Education/Work-Based Learning II Second Credit	22998G1024	11-12	1.0
Cooperative Education/Work-Based Learning III Third Credit	22998G1034	11-12	1.0
Cooperative Education/Work-Based Learning VI Fourth Credit	22998G1044	11-12	1.0
Cooperative Education/Work-Based Learning Experience I Fifth Credit	2298G1001	12	1.0
Cooperative Education/Work-Based Learning Experience II Sixth Credit	22998G1002	12	1.0
Culinary Arts Pathway			
Course	Course #	Grade	Credit
Hospitality and Tourism	16001G1000	9	1.0
Culinary Arts I	16053G1012	10	1.0
Food, Safety, & Microbiology (Science Credit Eligible)	19254G1000	11	1.0
Culinary Arts II and	16053G1022	12	1.0
Baking and Pastry Arts and	16056G1000	12	1.0
Senior Pathway Project Hospitality and Tourism	16097G1001	12	1.0
Cyber Security Pathway (FUTURE 23-24)			
Course	Course #	Grade	Credit
Information Technology Fundamentals	10001G1000	9	1.0
Foundations of Information Security	10020G1001	10	1.0
Principles of Information Security	10020G1002	11	1.0
Cyber Forensics -1st semester	10020G1003	12	1.0
Advanced Cyber Forensics - 2nd semester and/or	10020G1004	12	1.0
Senior Pathway Project Information Technology	10997G1001	12	1.0
Engineering Pathway (FUTURE 23-24)			
Course	Course #	Grade	Credit
Foundations of Engineering and Technology	21005G1000	9	1.0
Applications of Engineering and Technology (4th Mathematics Credit Eligible)	21002G1000	10	1.0
Capstone of Engineering and Technology	21047G1000	11	1.0
Computer Engineering and Technology	21015G1001	12	1.0
CTE Lab in STEM	21997G1000	12	1.0
Financial Management Pathway			
Course	Course #	Grade	Credit
Business Software Applications I	1005G1001	9	1.0
Business Communications	12009G1001	9	1.0
Personal Finance (1st semester)	19262G0500	10	0.5
Business Finance (2nd semester)	12007G0500	10	0.5
Economic & Financial Services	12105G1001	11	1.0

Entrepreneurship	12053G1000	12	1.0
Career Pathway Project in Finance	12147G1003	12	1.0
Health Science Pathway: Medical Professionals			
Course	Course #	Grade	Credit
Foundations of Health Science (Health Credit Eligible)	14002G1001	9	1.0
Human Body Structures & Functions (3rd and/or 4th Science Credit Eligible)	14299G1001	10	1.0
Therapeutic Services	14099G1000	11	1.0
Introduction to Pharmacy	14152G1000	11-12	1.0
Operating Room Foundations and/or	14056G1000	12-12	1.0
Health Science Internship	14298G1000	12	1.0
Health Science Pathway: Sports Medicine			
Course	Course #	Grade	Credit
Foundations of Health Science (Health Credit Eligible)	14002G1001	9	1.0
Sports Medicine Fundamentals	14062G1003	10	1.0
Sports Medicine Intermediate	14062G1001	11	1.0
Sports Medicine Advanced and/or	14062G1002	12	1.0
Health Science Internship	14298G1000	12	1.0
JROTC - Army Pathway (FUTURE 23-24)			
Course	Course #	Grade	Credit
JROTC I – Introduction to Leadership Development	09051G1001	9-12	1.0
JROTC II – Intermediate Leadership Development	09052G1001	10-12	1.0
JROTC III - Applied Leadership Development	09053G1001	11-12	1.0
JROTC IV - Advanced Leadership Development	09054G1001	12	1.0
Army JROTC 1b	09051G1002	9-12	1.0
Army JROTC 2b	09052G1002	10-12	1.0
Army JROTC 3b	09053G1002	11-12	1.0
Army JROTC 4b	09054G1002	12-12	1.0
Precision Machining Pathway (FUTURE 24-25)			
Course	Course #	Grade	Credit
Introduction to Mill, Drill Press, and Surface Grinder AND Intermediate Mill and Surface Grinder	13204G1003	10	1.0
	13204G1005	10	1.0
Introduction to Computer Numerical Control AND Intermediate Computer Numerical Control	13203G1002	11	1.0
	13203G1003	11	1.0
CAD and Computer Aided Manufacturing I AND CAD and Computer Aided Manufacturing II	13203G1004	12	1.0
	13203G1005	12	1.0
Recreation, Travel, and Tourism Pathway			
Course	Course #	Grade	Credit
Hospitality and Tourism	16001G1000	9	1.0
Event Planning & Management	16202G1001	10	1.0
Travel and Tourism I	16151G1000	11	1.0
Travel and Tourism II and	16152G1000	12	1.0
Sports, Recreation, and Entertainment Management and/or	16201G1000	12	1.0
Senior Pathway Project Hospitality and Tourism	16097G1001	12	1.0
Marketing Pathway			
Course	Course #	Grade	Credit
Business Software Applications I	1005G1001	9	1.0
Business Communications	12009G1001	9	1.0
Sports and Entertainment Marketing	12163G1003	10	1.0
Retail and Fashion Marketing	12161G1001	10	1.0

Entrepreneurship	12053G1000	11	1.0
Career Pathway Project in Marketing	12197G1001	12	1.0
Teaching and Training Pathway			
Course	Course #	Grade	Credit
Education and Training	12002G1001q	9	1.0
Teaching I	02153G1021	10	1.0
Teaching II	12163G1001	11	1.0
Education and Training Internship	12164G1002	12	1.0
Welding Pathway			
Course	Course #	Grade	Credit
NCCER Welding I	13207G1014	9	1.0
NCCER Welding II	13207G1024	10	1.0
NCCER Welding III	13207G1034	11	1.0
NCCER Welding IV and	13207G1044	12	1.0
Senior Pathway Project Arch. & Con.	1747G1000	12	1.0

CTE CURRICULUM HANDBOOK TABLE OF CONTENTS

ALABAMA HIGH SCHOOL GRADUATION REQUIREMENTS	3
ALBERTVILLE CITY SCHOOLS CAREER AND TECHNICAL EDUCATION COURSES	4
CAREER AND TECHNICAL EDUCATION APPLICATION PROCESS	9
APPLICATION DIRECTIONS:	9
SAFETY INSTRUCTION FOR CAREER/TECHNICAL EDUCATION	9
INSURANCE.....	9
MAINTENANCE OF EQUIPMENT AND ROOMS.....	9
SAFETY PROGRAM	10
SAFETY INSTRUCTION.....	10
CAREER AND TECHNICAL EDUCATION COURSE FEES	10
CAREER AND TECHNICAL EDUCATION COURSE DESCRIPTIONS	10
ALBERTVILLE CITY SCHOOLS PROGRAM GOALS	10
ACADEMY OF MODERN MANUFACTURING	11
Additive Manufacturing Pathway	12
Precision Machining Pathway.....	14
Welding Pathway.....	16
ACADEMY OF ARTS AND COMMUNICATION	18
Audio Visual and Advertising Design Pathway.....	19
Marketing Pathway.....	21
ACADEMY OF AGRISCIENCE	23
Animal Science Pathway.....	24
Building and Construction Pathway.....	26
Plant Science Pathway.....	28
ACADEMY OF BUSINESS	30
Business Information Technology Pathway.....	31
Financial Management Pathway	34
Marketing Pathway.....	37
ACADEMY OF COMPUTER SCIENCES	39
Computer Science Pathway	40
Cyber Security Pathway.....	42
ACADEMY OF HUMAN SCIENCES	44
Culinary Arts Pathway.....	45
Recreation, Travel, and Tourism Pathway	47
Teaching and Training Pathway.....	49
ACADEMY OF STEM AND ENGINEERING	51
Engineering Pathway	52
ACADEMY OF HEALTH SCIENCES.....	54
Medical Professionals Pathway	55
Sports Medicine Pathway	57
ACADEMY OF GOVERNMENT.....	59
Army JROTC Pathway.....	60

Career and Technical Education Application Process

Students wishing to enroll in the Albertville City Schools' Career and Technical Education Programs must complete an online application based on the Alabama Simulated Workplace. The programs requiring an application are as follows: Aggie Vision, Agriscience Animal Science, Agriscience Building and Construction, Agriscience Horticulture, Culinary Arts, Education: Teaching & Training, Recreation, Travel and Lodging, Drafting Design Technology, and Welding.

Application Directions:

- The application is located on each student's laptop.
- ALL applications must be submitted online. No paper applications will be accepted.
- In the event, students are not placed in their "First Choice Program," all students will have the option to choose a "Second Choice Program." They will have the opportunity to be placed in an alternate program of their choice.
- Students must complete all parts of the application by the close of registration.
- Schools will be provided a list of all students accepted along with their schedules no later than two weeks after the application deadline.
- Specific course information may be found in the Albertville City Schools Career and Technical Education Course Catalog located on the Albertville City Schools website.

The following rubric will be used to score all applications for admission:

- Application completed and submitted by due date: 35 points
- Attended or was enrolled in a CTE Cluster course previously: 25 points
- Clearly stated post-graduation plans: 25 points
- Attendance from the previous year: 15 points
- Total Points: 100 points

Attendance Rubric: # of full day absences excused or unexcused

0-3 days:	15 pts	4-7 days:	13 pts	8-11 days:	11 pts
12-15 days:	9 pts	16-19 days:	7 pts	20-23 days:	5 pts
<23 days:	0 pts				

Safety Instruction for Career/Technical Education

Students participating in a Career/Technical Education lab or shop must be given instructions in safety. Each student is required to practice safety in every activity in which he/she may engage. Safety is included in each course of study as an important phase of training. Disregarding appropriate safety requirements and/or procedures may be grounds for dismissal from the Career/Technical program.

Insurance

It is recommended that all students who participate in Career/Technical courses which include lab activities be encouraged to maintain an accident insurance policy for his/her protection.

Maintenance of Equipment and Rooms

Safe buildings, grounds, and equipment shall be maintained to minimize accidents or injuries to students, employees, and other citizens. Protection from such dangers as fire, natural disasters, mechanical, electrical malfunctions, and other hazards shall be provided. The director/administrator shall make periodic evaluative reports concerning their adequacy in terms of student care and safety.

Safety Program

The system has a district-wide safety and fire prevention program that coordinates the requirements of the fire marshal and civil defense program with appropriate school and community officials. Buildings shall be planned, equipped, and maintained in accordance with appropriate local, state, and federal building codes and safety regulations. Buildings shall be provided with fire and tornado alarm systems and workable fire extinguishers.

Safety Instruction

Safety instruction, to include accident prevention, safety drills, and disaster procedures, shall be stressed at all grade levels. Expertise of fire prevention, experts, health officials, and other community services shall be incorporated into the total safety program. Special emphasis shall be placed upon supervision within classrooms and on requirements concerning safety precautions in such "high risk" areas as shop classes. Proper supervision of students and others using the buildings shall always be required.

Career and Technical Education Course Fees

Course fees will be collected for Career and Technical Education Courses according to each individual class predetermined course fee. Students may apply for a reduction in fees. If approved, the fee per class is \$10. Dues for career and technical student organizations may not be waived.

Career and Technical Education Course Descriptions

Albertville City Schools Career and Technical Education academies provide students opportunities to engage in rigorous career relevant coursework utilizing state of the art technology while preparing for high-wage, high-skills, and high-demand careers. Students can earn industry certifications, as well as dual enrollment and articulated college credits for "College and Career Readiness" attainment. These programs integrate core academic skills with employability skills and current industry specific technologies.

Albertville City Schools Program Goals

It is the goal of Career and Technical Education for students in the program to be a "CTE Completer." Perkins V defines a "CTE Concentrator" as a student who completes at least two courses for two credits within a CTE program of study. A "CTE Completer" is a student who completes three or more CTE courses for four or more credits, including one state-determined level 3 or 4 (advanced or upper level) CTE course within a program of study. In accordance with Perkins V, Albertville City Schools ensures equitable access to all student populations.



ACADEMY OF MODERN MANUFACTURING

Additive Manufacturing | Precision Machining (Future) | Welding

Additive Manufacturing Pathway

Additive Manufacturing is based upon Computer-Aided-Design and 3-D Printing. This program provides students with the knowledge of Introduction, Intermediate, and Advanced Drafting Design Technology, Three-Dimensional Solid Modeling and Engineering Applications and the skill to be successful in the Mechanical and Technical Design fields.

Pathway Sequence

9th Grade	Introduction to Drafting Design (21106G1013)
10th Grade	Intermediate Drafting Design (21106G1023)
11th Grade	3D Solid Model Design I (21107G1012)
12th Grade	3D Solid Model Design II (21107G1022) and Career Pathway Project-Manufacturing (13997G1003)
Certifications	Autodesk- AutoCAD Certified User, Autodesk- Inventor Certified User, Autodesk Fusion 360 Certified User, Solid Edge Certified Associate, SolidWorks Associate, Certified Workforce Ready to Work

INTRODUCTION DRAFTING DESIGN (21106G1013)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course designed to provide students with instruction and experiences in computer-aided drafting (CAD) functions and techniques using CAD software applications.

INTERMEDIATE DRAFTING DESIGN (21106G1023)

Grade: 9 Credit: 1.0

Prerequisite(s): Introduction to Drafting Design (21106G1013)

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course designed to further the development of students' knowledge regarding the use of advanced drafting design practices and procedures. The prerequisite for this course is Introduction to Drafting Design.

3D SOLID MODEL DESIGN I (21107G1012)

Grade: 11 Credit: 1.0

Prerequisite(s): Intermediate Drafting Design (21106G1023)

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course intended to introduce students to three-dimensional modeling utilizing three-dimensional capabilities of CAD software. The prerequisite for this course is Intermediate Drafting Design.

3D SOLID MODEL DESIGN II (21107G1022)

Grade: 11 Credit: 1.0

Prerequisite(s): 3D Solid Model Design I (21107G1012)

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course intended for advanced students in three-dimensional (3-D) design modeling. The prerequisite for this course is Three-Dimensional Solid Model Design.

CAREER PATHWAY PROJECT – MANUFACTURING (13997G1003)

Grade: 12 Credit: 1.0

Prerequisite(s): 3D Solid Model Design I (21107G1012)

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

Career Pathway Project (CPP) in Manufacturing is a capstone course designed for career and technical education students who have completed two or more courses in the Manufacturing career cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and engage in an in-depth exploration of the area while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education. This course may be taken in any program within the Manufacturing cluster.

Precision Machining Pathway

This career pathway provides specialized classroom and laboratory experiences for students who are entering the field of manufacturing and engineering technology. Instruction is provided in the areas of blueprint reading, safety, bench work, lathe work, millwork, grinding, drill press, and Computer Numerical Control (CNC) programming. Emphasis is given to the use of precision measuring tools and gauges. Course content reflects the National Skills Standards of the National Institute for Metalworking Skills. Hands-on work experiences and SkillsUSA leadership activities enhance classroom instruction.

Pathway Sequence

9th Grade	
10th Grade	1st semester Introduction to Mill, Drill Press, and Surface Grinder (13204G1003) AND 2nd semester Intermediate Mill and Surface Grinder (13204G1005)
11th Grade	1st semester Introduction to Computer Numerical Control (13203G1002) AND 2nd semester Intermediate Computer Numerical Control (13203G1003)
12th Grade	1st semester CAD and Computer Aided Manufacturing I (13203G1004) AND 2nd semester CAD and Computer Aided Manufacturing II (13203G1005)
Certifications	NIMS Level 1 Registration, NIMS Level 1 Measurement, Materials, and Safety, NIMS Level 1 Job Planning, Bench work, and Layout, NIMS Level 1 Manual Milling Skills I, NIMS Level 1 Turning Operations: Turning Between Centers, NIMS Level 1 Turning Operations: Turning Chucking Skills, NIMS Level 1 Grinding Skills I, NIMS Level 1 Drill Press Skills I, NIMS Level 1 CNC Turning: Programming Setup and Operations, NIMS Level 1 CNC Milling: Programming Setup and Operations, NIMS Level 1 CNC Turning: Operations, NIMS Level 1 CNC Milling: Operations, Certified Workforce Ready to Work

INTRODUCTION TO MILL, DRILL PRESS, AND SURFACE GRINDER (13204G1003)

Grade: 10 Credit: 1.0

Prerequisite(s): None

Fee(s): \$35 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$55 total

Introduction to Mill, Drill Press, and Surface Grinder is a course that introduces students to manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical- thinking skills and principles of science, mathematics, and safety. Topics include milling techniques, drill press techniques, and grinding techniques. Career and technical student organizations, SkillsUSA are integral, co- curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

INTERMEDIATE MILL AND SURFACE GRINDER (13204G1005)

Grade: 10 Credit: 1.0

Prerequisite(s): Introduction to Mill, Drill Press, and Surface Grinder

Fee(s): \$35 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$55 total

Intermediate Mill and Surface Grinder is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include instructions in advanced milling and grinding operations.

Student instruction in manufacturing reflects the skill standards of the National Institute for Metalworking Skills (NIMS). Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

INTRODUCTION TO COMPUTER NUMERICAL CONTROL (13203G1002)

Grade: 11 Credit: 1.0

Prerequisite(s): Intermediate Mill and Surface Grinder

Fee(s): \$35 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$55 total

Introduction to Computer Numerical Control (CNC) is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include CNC programming and CNC operations.

Standards are based on the National Institute for Metalworking Skills (NIMS) Level I CNC Mill and NIMS Level I CNC Lathe. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

INTERMEDIATE COMPUTER NUMERICAL CONTROL (13203G1003)

Grade: 11 Credit: 1.0

Prerequisite(s): Introduction to Computer Numerical Control

Fee(s): \$35 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$55 total

Intermediate Computer Numerical Control (CNC) is a course that introduces students to manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include advanced CNC programming, setup, and proper operations. Students receive instructions regarding the skills standards of the National Institute for Metalworking Skills (NIMS). Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course. NIMS (National Institute for Metal Working Skills) credentials can be earned while enrolled in this course.

CAD AND COMPUTER AIDED MANUFACTURING I (13203G1004)

Grade: 12 Credit: 1.0

Prerequisite(s): Intermediate Computer Numerical Control

Fee(s): \$35 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$55 total

Computer-Aided Design and Computer-Aided Manufacturing (CAD-CAM) I is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include CAD-CAM safety, mathematic concepts, computer proficiency, programming CAM software, manufacturing of parts, and creating a two-dimensional design. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course.

CAD AND COMPUTER AIDED MANUFACTURING II (13203G1005)

Grade: 12 Credit: 1.0

Prerequisite(s): CAD and Computer Aided Manufacturing I

Fee(s): \$35 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$55 total

Computer-Aided Design and Computer-Aided Manufacturing (CAD-CAM) II is a course that introduces manufacturing processes and job opportunities for students who are pursuing careers in manufacturing. Students use critical-thinking skills and principles of science, mathematics, and safety. Topics include CAD-CAM safety, advanced mathematics concepts, CAD/CAM project development, computer numerical control (CNC) mill and lathe procedures, three-dimensional tool path operations, and verification. Career and technical student organizations, SkillsUSA are integral, co-curricular components of each career and technical education course.

Welding Pathway

This career pathway provides students with a fundamental understanding of blueprint reading, weld symbols and weld joints, rules for safety, and identification of shop equipment. Students acquire knowledge for safe operation of oxyfuel cutting and shielded metal arc welding processes. Upon completion of this course, students can interpret lines, views, and dimensions of weld joint configurations and weld symbols; identify oxy-fuel cutting equipment and components; determine proper setup of equipment for application; identify safety hazards and welding equipment related to shielded metal arc welding; and make quality welds with E-6010 and E-7018 electrodes in the flat, horizontal, vertical, and overhead positions. During the second year of enrollment, students will learn basic principles and applications of M.I.G. welding and G.T.A.W. process, including machine operation and control, electrode selection and care, filler rod types, and regulator settings. They will also learn how to determine the type of power source required which includes type of current and polarity, selection of gas type and gas flow rates, torches, and electrodes.

Pathway Sequence

9th Grade	NCCER Welding 1 (13207G1014)
10th Grade	NCCER Welding 2 (13207G1024)
11th Grade	NCCER Welding 3 (13207G1034)
12th Grade	NCCER Welding 4 (13207G1044) AND Senior Career Pathway Project (17047G1000)
Certifications	NCCER Core (all modules), NCCER Welding Level 1, NCCER Welding Level 1+, AWS Certifications (one or more areas), SMAW 3-G uphill progression D1.1, GTAW 3-G uphill progression (steel), FCAW 3-G uphill progression D1.1, GTAW 3-G uphill progression (aluminum) D1.2, GMAW 3-G uphill progression D1.1, Certified Workforce Ready to Work

NCCER WELDING 1 (13207G1014)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$40 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$60 total

This is the first of four required one-credit courses in the Welding Technologies Pathway. It is designed to complete all core requirements for NCCER Core credentialing and to provide students with fundamental knowledge and skills emphasizing use of hand tools, power tools, welding theory and practice for use in the manufacturing and construction industry. This entry-level course is required for NCCER Welding Level I credential and may be taken as one of the optional technical courses with credit applied to the Industrial Maintenance Technology area. Personal protective clothing is required for this course.

NCCER WELDING 2 (13207G1024)

Grade: 10 Credit: 1.0

Prerequisite(s): NCCER Welding 1(13207G1014)

Fee(s): \$40 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$60 total

This is the second of four required one-credit courses in the welding technologies pathway. Topics include basic shielded metal arc welding, blueprint reading, weld symbols and joint identification and print reading. Emphasis is placed on fundamental knowledge guided practice and NCCER Welding Level I requirements. Personal protective clothing is required for this course.

NCCER WELDING 3 (13207G1034)

Grade: 11 Credit: 1.0

Prerequisite(s): NCCER Welding 2 (13207G1024)

Fee(s): \$40 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$60 total

This is the third of four required one-credit courses in the Welding Technologies pathway. It is designed to provide students with theory, practice, and skills development. Emphasis is placed on application and operation of shielded metal arc welding (SMAW) equipment in the vertical, 3-F and overhead, 4-F positions leading to NCCER Welding Level I Credential. Personal protective clothing is required for this course.

NCCER WELDING 4 (13207G1044)

Grade: 12 Credit: 1.0

Prerequisite(s): NCCER Welding 3 (13207G1024)

Fee(s): \$40 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$60 total

This is the fourth of four required one-credit courses in the Welding Technologies pathway. It is designed to provide students with additional practice, and skills development. Emphasis is placed on application and operation of shielded metal arc welding (SMAW) equipment and mastery in the vertical, 3-F and overhead, 4-F positions leading to NCCER Welding Level I credential and AWS Plate certification. Personal protective clothing is required for this course.

SENIOR CAREER PATHWAY PROJECT (17047G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): NCCER Welding 3 (13207G1024)

Fee(s): \$40 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$60 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.



ACADEMY OF ARTS AND COMMUNICATION

Audio Visual and Advertising Design | Marketing

Audio Visual and Advertising Design Pathway

Advertising Design provides students with orientation experiences and laboratory safety for working in an advertising design studio environment. Topics of study include art history, art production, art criticism, design elements and principles, and materials and media utilized in the field of visual communication. Emphasis is placed on related academic skills. Instruction also includes information regarding various computer operations, applications and procedures, type styles, desktop publishing, layout and design techniques, mechanical production files, formats, and technology in the workplace.

Pathway Sequence

9th Grade	Foundations of Arts, Audio-Video Technology and Communication (11990G1001)
10th Grade	Digital Design (12165G1012)
11th Grade	Graphic Illustration (12165G1022)
12th Grade	Studio and Portfolio (12165G1001) and Senior Career Pathway Project-Arts, A/V, Tech and Communications (11197G1001)
Certifications	Adobe Certified Associate -Photoshop ,Adobe Certified Associate -Premiere Pro, Adobe Certified Associate -Illustrator , Adobe Certified Associate -Dreamweaver , Certified Internet Webmaster Ecommerce, Certified Internet Webmaster Enterprise Developer, Certified Internet Webmaster Site Designer , Certified Dreamweaver 8 Developer , Certified Macromedia Dreamweaver MX 2004 Developer, Microsoft Certified Professional + Internet (MCP+I), Microsoft Certified Professional Site Building (MCP+Site Building)

FOUNDATION OF ARTS, AUDIO-VIDEO, TECHNOLOGY AND COMMUNICATION (11990G1001)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course designed to introduce students to the areas of Advertising Design, Animation, Commercial Photography, Graphic Arts, and Television Production.

DIGITAL DESIGN (12165G1012)

Grade: 10 Credit: 1.0

Prerequisite(s): Foundations of Arts, Audio-Video Technology and Communication (11990G1001)

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course that provides students with hands-on experiences including computer operations, applications and procedures, type styles, desktop publishing, layout and design techniques, mechanical production files, formats, and workplace-related technology. The prerequisite for this course is Introduction to Advertising Design or an equivalent visual arts credit.

GRAPHIC ILLUSTRATION (12165G1022)

Grade: 11 Credit: 1.0

Prerequisite(s): Digital Design (12165G1012)

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course that provides students with experiences and instruction in object and information design. The prerequisite for this course is Digital Design.

STUDIO AND PORTFOLIO (12165G1001)

Grade: 12 Credit: 1.0

Prerequisite(s): *Graphic Illustration (12165G1022)*

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course that provides students with the opportunity to create projects utilizing traditional and electronic portfolio presentations. This course prepares students for postsecondary education and/or entry-level positions in the advertising design industry. The prerequisite for this course is Graphic Illustration.

SENIOR CAREER PATHWAY PROJECT: ARTS, A/V, TECH AND COMMUNICATIONS (11197G1001)

Grade: 12 Credit: 1.0

Prerequisite(s): *Graphic Illustration (12165G1022)*

Fee(s): \$30 course fee, \$20 SkillsUSA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.

Marketing Pathway

This program is for students who are interested in pursuing careers in marketing. Courses provide an overview of career opportunities, which are available in every sector of the economy and requires individuals working in marketing to become familiar with topics including sales, marketing, customer service, telecommunications, research, and media.

Pathway Sequence

9th Grade	Business Software Applications I (1005G1001) or Business Communications (12009G1001)
10th Grade	Sports and Entertainment Marketing (12163G1003) and/or Retail and Fashion Marketing (12161G1001)
11th Grade	Entrepreneurship(12053G1000)
12th Grade	Career Pathway Project in Marketing (12197G1001)
Certifications	<p>Microsoft Office Specialist (Two or more in Outlook, PowerPoint, Word, Excel, SharePoint) Adobe Certified Associate (ACA), Adobe Certified Associate (ACA) – Dreamweaver, Adobe Certified Associate (ACA) – Premier Pro, Adobe Certified Associate (ACA) – InDesign, Adobe Certified Associate (ACA) – Illustrator, Adobe Certified •Associate (ACA) – Photoshop</p> <p>Other Certifications: Certified Guest Services Professional, ASK Institute-Concepts of Entrepreneurship in Management, National Retail Federation-National Professional Certification in Customer Service and Sales</p>

BUSINESS SOFTWARE APPLICATIONS I (1005G1001)

Grade: 9. Credit: 1.0 Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Software Applications I emphasize the skills required to create, edit, and publish industry-appropriate documents. Areas of instruction include the integration of word processing, desktop publishing, spreadsheets, database management, and presentation software as well as the use of emerging technologies. Competencies for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are also embedded in this course. Students will have the opportunity to gain industry-recognized credentials to document basic computer skills needed for future education or employment.

BUSINESS COMMUNICATIONS (12009G1001)

Grade: 9. Credit: 1.0 Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Communications focuses on how employees and management interact with each other and with groups and individuals outside the organization to reach organizational goals, objectives, and activities. This course emphasizes oral, written, and digital communication techniques, and content is designed to encourage exploration of business ethics, teamwork, conflict resolution, and leadership skills. Content standards require the use of presentation and word processing software to create business communications. Standards require proficiency in producing documents and multimedia presentations.

SPORTS AND ENTERTAINMENT MARKETING (12163G1003)

Grade: 10. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications (12009G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Sports and Entertainment Marketing is a specialized course designed to offer students an opportunity to gain knowledge and develop skills related to the growing sports and entertainment industry. This course introduces the student to the

major segments of the industry and the social and economic impact the industry has on local, state, national, and global economies.

RETAIL AND FASHION MARKETING (12161G1001)

Grade: 10. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications (12009G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Retail and Fashion Marketing is designed to provide students with an overview of retail and fashion marketing principles and practices. This course introduces students to the retail industry, including the fundamentals of fashion marketing, key marketing concepts essential to every business, types of businesses involved in the industry, fashion industry economics, and an array of career opportunities. Standards are written in ways that encourage skill development in marketing segmentation and target marketing, product selection and buying, and inventory systems.

ENTREPRENEURSHIP (12053G1000)

Grade: 11. Credit: 1.0

Prerequisite(s): Sports and Entertainment Marketing (12163G1003) or Retail and Fashion Marketing (12161G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Entrepreneurship focuses on the skills needed to organize, develop, create, and manage a business in a variety of environments. Course standards are designed to foster an entrepreneurial mindset; encourage innovation, critical thinking, and problem-solving in a fast-paced professional setting; and build basic knowledge of various entrepreneurial ventures.

CAREER PATHWAY PROJECT IN MARKETING (12197G1001)

Grade: 12. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications (12009G1001) AND one other course in the Marketing Pathway

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Career Pathway Project (CPP) in Marketing is a capstone course designed for students who have completed two or more Career and Technical Education credits from the same pathway in the Marketing Career Cluster. This course allows students to utilize the knowledge and skills gained through their secondary coursework in a practical, real-world experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and explore it in depth while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.



ACADEMY OF AGRISCIENCE

Animal Science | Building Construction | Plant Science

Animal Science Pathway

This program is designed to provide students with an understanding of livestock management, veterinary science, poultry science, equine science, and food processing.

Pathway Sequence

9th Grade	Fundamentals of Agriscience (18003G1001)
10th Grade	Intro to Veterinary Science (18105G1012)
11th Grade	Agrobiology (3rd and/or 4th Science Credit Eligible) (18004G1001)
12th Grade	Veterinary Science (18105G1022) and Career Pathway Project in AGNR (18998G1000)
Certifications	Adult Beef Quality Assurance (The following three areas are required): Cow/Calf Stocker Feed Yard, Aquaculture Training and Online Learning (ATOLL) Aquaculture or Aquaponics, MSSC – Certified Production Technician (CPT): Each module will count as a CRI. The CPT 4.0 program consists of five individual certificate assessments: 1. Safety 2. Quality Practices & Measurement 3. Manufacturing Processes & Production 4. Maintenance Awareness, Elanco Veterinary Medical Applications Certification

FUNDAMENTALS OF AGRISCIENCE (18003G1001)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$35 course fee, \$30 FFA dues (2022-2023 FFA dues have been paid by grant) \$35 total

Fundamentals of Agriscience is a course that provides students with a fundamental overview of the Agriculture, Food and Natural Resources cluster, which contains five pathways: Power, Structure, and Technical Systems; Environmental and Natural Resources Systems; Animal Systems; Plant Systems; and Agribusiness Systems. Students are involved in classroom and laboratory activities in each of the five pathway areas. The emphasis for Fundamentals of Agriscience is based around the NCCER Core Curriculum including basic safety, construction math, hand tools, power tools, construction drawings, basic rigging, communication skills, employability skills, and materials handling. Fundamentals of Agriscience is a part of four courses that comprise the General Agriscience Program. This course should be offered in series along with Intermediate Agriscience, Advanced Agriscience, and Applied Agricultural Mechanics. It is strongly encouraged that Fundamentals of Agriscience be a required pre-requisite for the other courses in the program. Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

AGRIBIOLOGY (18004G1001)

Grade: 10 Credit: 1.0

Prerequisite(s): Fundamentals of Agriscience (18003G1001)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Agrobiology uses agricultural contexts to present life science content. As students consider practical agricultural concepts, they apply scientific ways of thinking and working to real-life problems. Content may be enhanced by utilizing appropriate technology.

INTRO TO VETERINARY SCIENCE (18105G1012)

Grade: 11 Credit: 1.0

Prerequisite(s): Fundamentals of Agriscience (18003G1001)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course designed to provide students with an introduction to the veterinary science profession. Topics include career opportunities, safety, human treatment, laws and regulations, anatomy and physiology, animal health, and veterinary services.

AGRIBIOLOGY (18004G1001)

Grade: 10 Credit: 1.0

Prerequisite(s): *Intro to Veterinary Science (18105G1012)*

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Agribiology uses agricultural contexts to present life science content. As students consider practical agricultural concepts, they apply scientific ways of thinking and working to real-life problems. Content may be enhanced by utilizing appropriate technology.

VETERINARY SCIENCE (18105G1022)

Grade: 12 Credit: 1.0

Prerequisite(s): *Agribiology (18004G1001)*

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course designed to prepare students for entry-level employment or advanced training in the veterinary assisting industry. Emphasis is placed on reproduction, genetics, hormones, growth disorders, animal anesthesiology, basic surgery procedures, health management, business management, and technology.

CAREER PATHWAY PROJECT IN AFNR (18998G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Intro to Veterinary Science (18105G1012)*

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Career Pathway Project (CPP) in Agriculture, Food, and Natural Resources is a capstone course designed for career and technical education students who have completed two or more courses in the AFNR career cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and engage in an in-depth exploration of the area while demonstrating problem-solving, decision-making, and independent learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.

Building and Construction Pathway

This program is designed to provide students with a general understanding of agricultural power equipment and modern construction and building practices.

Pathway Sequence

9th Grade	Fundamentals of Agriscience (18003G1001)
10th Grade	Introduction to Agriculture Construction (18403G1000)
11th Grade	Introduction to Agriculture Construction (18403G1000)
12th Grade	Construction Finishing and Interior Systems (18011G1000) and Career Pathway Project in AAFNR (18998G1000)
Certifications	NCCER Core (module 6 is an elective and not required for CRI), NCCER Carpentry Level 1, NCCER Welding Level 1, Construction and Skilled Trade Assessment (CAST), MSSC – Certified Production Technician (CPT): Each module will count as a CRI. The CPT 4.0 program consists of five individual certificate assessments: 1. Safety 2. Quality Practices & Measurement 3. Manufacturing Processes & Production 4. Maintenance Awareness, Briggs and Stratton Technician (Two of the following areas required) 1. Theory of Operation 2. Carburetors and Fuel Systems 3. Governors 4. Compression 5. Ignition Systems. Maintenance Awareness, Home Builders Association of Alabama Residential Construction Skills Certifications

FUNDAMENTALS OF AGRISCIENCE (18003G1001)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Fundamentals of Agriscience is a course that provides students with a fundamental overview of the Agriculture, Food and Natural Resources cluster, which contains five pathways: Power, Structure, and Technical Systems; Environmental and Natural Resources Systems; Animal Systems; Plant Systems; and Agribusiness Systems. Students are involved in classroom and laboratory activities in each of the five pathway areas. The emphasis for Fundamentals of Agriscience is based around the NCCER Core Curriculum including basic safety, construction math, hand tools, power tools, construction drawings, basic rigging, communication skills, employability skills, and materials handling. Fundamentals of Agriscience is a part of four courses that comprise the General Agriscience Program. This course should be offered in series along with Intermediate Agriscience, Advanced Agriscience, and Applied Agricultural Mechanics. It is strongly encouraged that Fundamentals of Agriscience be a required prerequisite for the other courses in the program. Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

INTRODUCTION TO AGRICULTURE CONSTRUCTION (18403G1000)

Grade: 10 Credit: 1.0

Prerequisite(s): Fundamentals of Agriscience (18003G1001)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Introduction to Agricultural Construction provides students with an overview of framing and building a structure. Topics include lumber, metal, material estimation, floor systems, framing systems (ceiling, wall, roof), and roofing materials for various structures.

CONSTRUCTION FRAMING (18004G1001)

Grade: 11 Credit: 1.0

Prerequisite(s): Construction Site Prep and Foundations (18014G1000)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course designed to facilitate students' understanding of the framing components of a structure. Emphasis is placed on floor systems, wall and ceiling framing, stair construction, and roof framing.

CONSTRUCTION FINISHING AND INTERIOR SYSTEMS (18011G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): Construction Framing (18004G1001)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course designed to provide instruction on the exterior and interior finishing phases of a structure.

CAREER PATHWAY PROJECT IN AFNR (18998G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): Construction Framing (18004G1001)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Career Pathway Project (CPP) in Agriculture, Food, and Natural Resources is a capstone course designed for career and technical education students who have completed two or more courses in the AFNR career cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and engage in an in-depth exploration of the area while demonstrating problem-solving, decision-making, and independent learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.

Plant Science Pathway

This program is designed to provide students with an understanding of the greenhouse, horticulture, and nursery/landscape industries.

Pathway Sequence

9th Grade	Fundamentals of Agriscience (18003G1001)
10th Grade	Greenhouse & Nursery Production (18052G1002)
11th Grade	Plant Biotechnology (3rd and/or 4th Science Credit Eligible) (18308G1002)
12th Grade	Landscape Design & Management (18056G1001) and/or Turfgrass Management (18054G1000) and/or Career Pathway Project in AAFNR (18998G1000)
Certifications	Landscape Management Technician, Urban Forestry Technician, Setting of Landscape Plants (SLP) Permit, Tree Surgery (TS) Permit, Landscape Design (LD) Permit, Landscape Design and Plant Materials Certification, Forestry Worker Certification, Turfgrass Management Certification, Specialty Crops, Integrated Pest Management Certification, MSSC – Certified Production Technician (CPT): Each module will count as a CRI. The CPT 4.0 program consists of five individual certificate assessments: 1. Safety 2. Quality Practices & Measurement 3. Manufacturing Processes & Production 4. Maintenance Awareness

FUNDAMENTALS OF AGRISCIENCE (18003G1001)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Fundamentals of Agriscience is a course that provides students with a fundamental overview of the Agriculture, Food and Natural Resources cluster, which contains five pathways: Power, Structure, and Technical Systems; Environmental and Natural Resources Systems; Animal Systems; Plant Systems; and Agribusiness Systems. Students are involved in classroom and laboratory activities in each of the five pathway areas. The emphasis for Fundamentals of Agriscience is based around the NCCER Core Curriculum including basic safety, construction math, hand tools, power tools, construction drawings, basic rigging, communication skills, employability skills, and materials handling. Fundamentals of Agriscience is a part of four courses that comprise the General Agriscience Program. This course should be offered in series along with Intermediate Agriscience, Advanced Agriscience, and Applied Agricultural Mechanics. It is strongly encouraged that Fundamentals of Agriscience be a required prerequisite for the other courses in the program. Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

GREENHOUSE AND NURSERY PRODUCTION (18052G1002)

Grade: 11 Credit: 1.0

Prerequisite(s): Fundamentals of Agriscience (18003G1001)

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Greenhouse and Nursery Production gives students the opportunity to utilize, manage, and maintain facilities and tools and to carry out procedures used in growing plants commercially. The course prepares them to own, manage, or work in greenhouses and plant nurseries. Topics include facilities, growing media, propagation, plant identification, production, pest and disease management, and business management.

PLANT BIOTECHNOLOGY (18308G1002)

Grade: 10 Credit: 1.0

Prerequisite(s): *Greenhouse and Nursery Production (189052G1002)*

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course that provides students with an opportunity to develop an understanding of plant genetics and biotechnology relative to agriculture-related products and services. Emphasis is placed on cellular biology, applied genetics and biotechnology concepts, and social and environmental impacts of biotechnology.

LANDSCAPE DESIGN AND MANAGEMENT (18056G1001)

Grade: 12 Credit: 1.0

Prerequisite(s): *Plant Biotechnology (18308G1002)*

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Greenhouse and Nursery Production gives students the opportunity to utilize, manage, and maintain facilities and tools and to carry out procedures used in growing plants commercially. The course prepares them to own, manage, or work in greenhouses and plant nurseries. Topics include facilities, growing media, propagation, plant identification, production, pest and disease management, and business management.

CAREER PATHWAY PROJECT IN AFNR (18998G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Plant Biotechnology (18308G1002)*

Fee(s): \$35 course fee, \$30 FFA dues (paid once a year, first semester - no waiver) \$65 total

Career Pathway Project (CPP) in Agriculture, Food, and Natural Resources is a capstone course designed for career and technical education students who have completed two or more courses in the AFNR career cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and engage in an in-depth exploration of the area while demonstrating problem-solving, decision-making, and independent learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.



ACADEMY OF BUSINESS

Business Information Technology | Financial Management | Marketing

Business Information Technology Pathway

This program is for students who are interested in pursuing careers in business information technology. Courses provide an overview of career opportunities, which are available in every sector of the economy and require specific skills in basic computer programming, print and digital media, information management, and other effective uses of technology.

Pathway Sequence

9th Grade	Business Software Applications I (1005G1001)
10th Grade	Business Software Applications II (1005G1002) and/or Digital Media Design (1153G1001)
11th Grade	Digital Publication Design (11153G1001) and/or Mobile Application Development(10206G1001)
12th Grade	Computer Game & Simulation Programming (10205G1001) and/or Career Pathway Project in Bus. Management (12047G1001)
Certifications	<ul style="list-style-type: none"> • Adobe Certified Associate (ACA) – Photoshop, Adobe Certified Associate (ACA) – Dreamweaver, Adobe Certified Associate (ACA), Adobe Certified Associate (ACA) – Premier Pro, Adobe Certified Associate (ACA) – InDesign, Adobe Certified Associate (ACA), Illustrator, Microsoft Office, Excel Expert, Word Expert, Microsoft Office Specialist (MOS), Two of the following areas are REQUIRED: Access - Excel - Outlook - PowerPoint - SharePoint - Word - Certified Internet Web (CIW) - JavaScript Specialist, Certiport- Entrepreneurship and SmallBusiness (must hold concentrator status, Certiport Information Technology, Specialist (ITS) HTML5 Application Development, Certiport Information Technology Specialist (ITS) Databases, Certiport Information Technology Specialist (ITS) Software Development, Certiport Information Technology Specialist (ITS) HTML & CSS, Certiport Information Technology Specialist (ITS) JavaScript, Certiport Information Technology Specialist (ITS) Java, Certiport Information Technology Specialist (ITS) Python, IC3 Global Standard 6 (or higher) Three Exams Required, Oracle Certified Associate (OCA) - Java Programmer

BUSINESS SOFTWARE APPLICATIONS I (1005G1001)

Grade: 9. Credit: 1.0 Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Software Applications I emphasize the skills required to create, edit, and publish industry-appropriate documents. Areas of instruction include the integration of word processing, desktop publishing, spreadsheets, database management, and presentation software as well as the use of emerging technologies. Competencies for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are also embedded in this course. Students will have the opportunity to gain industry-recognized credentials to document basic computer skills needed for future education or employment.

BUSINESS SOFTWARE APPLICATIONS II (1005G1002)

Grade: 10 Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Software Applications II focuses on advanced word processing and spreadsheet and database management skills using current and emerging integrated technology. These skills include a variety of input technologies in the production of professional quality business documents and reports. Performance and production skills for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are embedded in this course. Students will also can gain industry-recognized credentials to document advanced computer skills needed for future education or employment plans.

DIGITAL MEDIA DESIGN (1153G1002)

Grade: 10 Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Digital Media Design provides a creative, hands-on environment in which students collaborate to produce a variety of digital media projects. Students use various hardware, peripherals, software, and web-based tools to learn skills involving graphic design, digital photography, web design, and digital video production. Additionally, the standards are designed for students to engage in critical thinking skills and practice appropriate behavior in the use of technology. Emphasis is placed on exploring and demonstrating business-related skills such as teamwork, interpersonal skills, and ethics while completing their projects.

DIGITAL PUBLICATION DESIGN (1153G1002)

Grade: 11 Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Digital Publications Design gives students marketable experience in both print and digital publishing. Emphasis is placed on page layout and design, computerized text, graphic art, digital photography, and the use of software to create a variety of publications.

MOBILE APPLICATION DEVELOPMENT (10206G1001)

Grades: 11 Credit: 1.0

Prerequisite(s): Digital Media Design (1153G1002)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Mobile Application Development is designed to equip students to create and develop mobile applications, which are both popular and important in education, entertainment, news, social dynamics, media, and general learning. This project-oriented course focuses on learning principles of basic design and development of mobile applications. This course will include analytical skills that mobile developers require for overall career success.

COMPUTER GAME AND SIMULATION PROGRAMMING (10205G1001)

Grades: 12 Credit: 1.0

Prerequisite(s): Mobile Application Development (1206G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Computer Game and Simulation Programming standards are designed to equip students with the skills needed to prepare for higher education and for success in careers such as a computer game simulator, designer, programmer, or software developer. Interest and involvement in the gaming industry has grown substantially over the years. Professions in this industry require technical skill proficiency, competency-based applied learning, higher-order reasoning, teamwork, and problem-solving skills. The course integrates core academic subjects with elements of visual design, digital audio and video, storyboarding, and collaboration to attain the knowledge, skills, and attitudes necessary to compete successfully in the gaming production industry.

CAREER PATHWAY PROJECT - BUSINESS MANAGEMENT (12047G1001)

Grades: 12 Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) and one additional course in BIT pathway

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Career Pathway Project (CPP) in Business Management and Administration is a capstone course designed for students who have earned two or more career and technical education credits from the same pathway in the Business Management and Administration Career Cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and explore it in depth while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.

Financial Management Pathway

This program is for students who are interested in pursuing careers in finance. Courses provide an overview of career opportunities, which are available in every sector of the economy and require individuals working in finance to have strong computational, analytical, and interpersonal skills and effective use of technology.

Pathway Sequence

9th Grade	Business Software Applications I (1005G1001) or Business Communications (12009G1001)
10th Grade	1st Semester: Personal Finance-0.5 credit(19262G0500) and 2nd Semester: Business Finance- 0.5 credit (12007G0500)
11th Grade	Economics and Financial Services (12105G1001)
12th Grade	Entrepreneurship(12053G1000) and Career Pathway Project in Finance (12147G1003)
Certifications	ASK Institute – Concepts of Finance, IC3 Global Standard 6 (or higher) Three Exams Required, Certiport – Entrepreneurship and Small Business (must hold concentrator status), Certified Guest Service Professional, Certiport Information Technology Specialist (ITS) Databases, Intuit® Quickbooks Certified User, Microsoft Office – Access Expert 2019/O365, Microsoft Office – Excel Expert 2019/O365, Microsoft Office – Word Expert 2019/O365, Microsoft Office Specialist-Associate 2019/O365 (MOS) (Two of the following areas REQUIRED), Excel Associate, Outlook Associate, PowerPoint Associate, Word Associate, <ul style="list-style-type: none"> • National Retail Federation – National Professional Certification in Customer Service and Sales

BUSINESS SOFTWARE APPLICATIONS I (1005G1001)

Grade: 9. Credit: 1.0

Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Software Applications I emphasize the skills required to create, edit, and publish industry-appropriate documents. Areas of instruction include the integration of word processing, desktop publishing, spreadsheets, database management, and presentation software as well as the use of emerging technologies. Competencies for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are also embedded in this course. Students will have the opportunity to gain industry-recognized credentials to document basic computer skills needed for future education or employment.

BUSINESS COMMUNICATIONS (12009G1001)

Grade: 9. Credit: 1.0 Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Communications focuses on how employees and management interact with each other and with groups and individuals outside the organization to reach organizational goals, objectives, and activities. This course emphasizes oral, written, and digital communication techniques, and content is designed to encourage exploration of business ethics, teamwork, conflict resolution, and leadership skills. Content standards require the use of presentation and word processing software to create business communications. Standards require proficiency in producing documents and multimedia presentations.

PERSONAL FINANCE (19262G0500)

Grade: 10. Credit: 0.5

Prerequisite(s): *Business Software Applications I (1005G1001) or Business Communications (12009G1001)*

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Personal Finance is a foundational course that introduces students to the principles of financial literacy for achieving personal goals. This course is designed to inform students about how the choices they make directly influence their occupational goals, future earning potential, and long-term financial well-being. Content provides opportunities for students to explore consumer behavior, legislation, consumer protection, consumer rights and responsibilities, financial decision-making, advertising and promotional techniques, individual and family money management, banking services, use of credit, income tax, and technology.

BUSINESS FINANCE (12007G0500)

Grade: 10. Credit: 0.5

Prerequisite(s): *Business Software Applications I (1005G1001) or Business Communications (12009G1001)*

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

A one-half credit course designed to provide students with an overview of the principles of business finance. The curriculum focuses on economics, marketing, accounting procedures, and the global financial market. Specific content standards to be included in each of the courses are indicated in the Course of Study chart.

ECONOMIC AND FINANCIAL SERVICES (12105G1001)

Grade: 11. Credit: 1.0

Prerequisite(s): *Personal Finance (19262G0500) and Business Finance (12007G0050)*

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Economics and Financial Services presents basic topics in economics, including the principles and practices of banking, credit, and consumer lending in the United States. Additional emphasis is placed on money management, economic growth and stability, and characteristics of different economic systems and financial institutions. The course includes the major functions of banks and other financial intermediaries, central banking and the Federal Reserve System, current trends in the finance industry, credit functions, principles of credit risk evaluation, loan creation, debt collection, and stocks and bonds.

ENTREPRENEURSHIP (12053G1000)

Grade: 12. Credit: 1.0

Prerequisite(s): *Economic and Financial Services (12105G1001)*

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Entrepreneurship focuses on the skills needed to organize, develop, create, and manage a business in a variety of environments. Course standards are designed to foster an entrepreneurial mindset; encourage innovation, critical thinking, and problem-solving in a fast-paced professional setting; and build basic knowledge of various entrepreneurial ventures.

CAREER PATHWAY PROJECT IN FINANCE

Grade: 12. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications I (12009G1001) AND one other course in the Financial Management Pathway

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Career Pathway Project (CPP) in Finance is a capstone course designed for students who have earned two or more credits from the same pathway in the Finance Career Cluster. This course allows students to utilize the knowledge and skills gained through their secondary coursework in a practical, real-world experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and explore it in depth while demonstrating problem-solving, decision-making, and independent learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.

Marketing Pathway

This program is for students who are interested in pursuing careers in marketing. Courses provide an overview of career opportunities, which are available in every sector of the economy and requires individuals working in marketing to become familiar with topics including sales, marketing, customer service, telecommunications, research, and media.

Pathway Sequence

9th Grade	Business Software Applications I (1005G1001) or Business Communications (12009G1001)
10th Grade	Sports and Entertainment Marketing (12163G1003) and/or Retail and Fashion Marketing (12161G1001)
11th Grade	Entrepreneurship(12053G1000)
12th Grade	Career Pathway Project in Marketing (12197G1001)
Certifications	Microsoft Office Specialist (Two or more in Outlook, PowerPoint, Word, Excel, SharePoint) Adobe Certified Associate (ACA), Adobe Certified Associate (ACA) – Dreamweaver, Adobe Certified Associate (ACA) – Premier Pro, Adobe Certified Associate (ACA) – InDesign, Adobe Certified Associate (ACA) – Illustrator, Adobe Certified Associate (ACA) – Photoshop Other Certifications: Certified Guest Services Professional, ASK Institute-Concepts of Entrepreneurship in Management, National Retail Federation-National Professional Certification in Customer Service and Sales

BUSINESS SOFTWARE APPLICATIONS I (1005G1001)

Grade: 9. Credit: 1.0 Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Software Applications I emphasize the skills required to create, edit, and publish industry-appropriate documents. Areas of instruction include the integration of word processing, desktop publishing, spreadsheets, database management, and presentation software as well as the use of emerging technologies. Competencies for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are also embedded in this course. Students will have the opportunity to gain industry-recognized credentials to document basic computer skills needed for future education or employment.

BUSINESS COMMUNICATIONS (12009G1001)

Grade: 9. Credit: 1.0 Prerequisite(s): NONE

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Business Communications focuses on how employees and management interact with each other and with groups and individuals outside the organization to reach organizational goals, objectives, and activities. This course emphasizes oral, written, and digital communication techniques, and content is designed to encourage exploration of business ethics, teamwork, conflict resolution, and leadership skills. Content standards require the use of presentation and word processing software to create business communications. Standards require proficiency in producing documents and multimedia presentations.

SPORTS AND ENTERTAINMENT MARKETING (12163G1003)

Grade: 10. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications (12009G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Sports and Entertainment Marketing is a specialized course designed to offer students an opportunity to gain knowledge and develop skills related to the growing sports and entertainment industry. This course introduces the student to the major segments of the industry and the social and economic impact the industry has on local, state, national, and global economies.

RETAIL AND FASHION MARKETING (12161G1001)

Grade: 10. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications (12009G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Retail and Fashion Marketing is designed to provide students with an overview of retail and fashion marketing principles and practices. This course introduces students to the retail industry, including the fundamentals of fashion marketing, key marketing concepts essential to every business, types of businesses involved in the industry, fashion industry economics, and an array of career opportunities. Standards are written in ways that encourage skill development in marketing segmentation and target marketing, product selection and buying, and inventory systems.

ENTREPRENEURSHIP (12053G1000)

Grade: 11. Credit: 1.0

Prerequisite(s): Sports and Entertainment Marketing (12163G1003) or Retail and Fashion Marketing (12161G1001)

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Entrepreneurship focuses on the skills needed to organize, develop, create, and manage a business in a variety of environments. Course standards are designed to foster an entrepreneurial mindset; encourage innovation, critical thinking, and problem-solving in a fast-paced professional setting; and build basic knowledge of various entrepreneurial ventures.

CAREER PATHWAY PROJECT IN MARKETING (12197G1001)

Grade: 12. Credit: 1.0

Prerequisite(s): Business Software Applications I (1005G1001) or Business Communications (12009G1001) AND one other course in the Marketing Pathway

Fee(s): \$20 course fee, \$15 FBLA dues (paid once a year, first semester - no waiver)-\$35 total

Career Pathway Project (CPP) in Marketing is a capstone course designed for students who have completed two or more Career and Technical Education credits from the same pathway in the Marketing Career Cluster. This course allows students to utilize the knowledge and skills gained through their secondary coursework in a practical, real-world experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and explore it in depth while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.



ACADEMY OF COMPUTER SCIENCES

Computer Science | Cyber Security (Future)

Computer Science Pathway

This program is for students who are interested in careers that involve designing, implementing, and maintaining computer systems and software for desktop and web-based applications. Courses provide an overview of the knowledge and skills required in computer operating systems, programming languages, and software development.

Pathway Sequence

9th Grade	Information Technology Fundamentals (1001G1000)
10th Grade	Exploring Computer Science (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible) (10012G1001)
11th Grade	Computer Science Principles, AP (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible) (10019E1000) or Intro. to Digital Literacy & Computer Science (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible) (10011G1000)
12th Grade	Computer Science A, AP (4th Mathematics Credit Eligible and/or 3rd and/or 4th Science Credit Eligible) (10157E1000) and Senior Career Pathway Project-Information Technology(10997G1001)
Certifications	Certified Internet Web (CIW) - JavaScript Specialist, Microsoft Technology Associate (MTA) - 98-375 HTML5 Application Developer Fundamentals, Microsoft Technology Associate (MTA) - 98-361 Software Development Fundamentals, Microsoft Technology Associate (MTA) - 98-383 Introduction to Programming using HTML & CSS, Oracle Certified Associate (OCA) - Java Programmer, Microsoft Technology Associate (MTA) - 98-388 Introduction to Programming using Java, Microsoft Technology Associate (MTA) - 98-381 Introduction to using Programming using Python, Microsoft Technology Associate (MTA) - 98-382 Introduction to Programming using JavaScript

INFORMATION TECHNOLOGY FUNDAMENTALS (1001G1000)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one-credit course that introduces students to the knowledge base and technical skills for information technology careers. Students study the nature of business and demonstrate knowledge of the functions of information systems in business.

EXPLORING COMPUTER SCIENCE (10012G1001)

Grade: 10 Credit: 1.0

Prerequisite(s): Completed Algebra I prior to enrolling or be concurrently enrolled in Algebra I.

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

Exploring Computer Science is an introductory year-long high school computer science course for students in Grades 9-10 focused on foundational computer science concepts and computational practices. Students will be introduced to the breadth of the field of computer science through an exploration of engaging and accessible topics. The course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve problems. The goal of Exploring Computer Science is to develop in students the computational practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as interface design, limits of computers, and societal and ethical issues. Prerequisite: It is recommended that students have completed Algebra I prior to enrolling or be concurrently enrolled in Algebra I. Exploring Computer Science is designed to be a college preparatory high school course and thus, should provide a rigorous, but accessible, introduction to computer science. No previous computer science experience is required.

COMPUTER SCIENCE PRINCIPLES, AP (10019E1000)

Grade: 11 Credit: 1.0

Prerequisite(s): *Exploring Computer Science (10012G1001)*

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

College-level advanced course following the curriculum established by the College Board Advanced Placement (AP) program for computer science; focuses on the innovative and multidisciplinary aspects of computing as well as the computational thinking practices that help students see how computing is relevant to many areas of their everyday lives; introduces students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts.

INTRODUCTION TO DIGITAL LITERACY AND COMPUTER SCIENCE (10011G1000)

Grade: 11 Credit: 1.0

Prerequisite(s): *Completed Algebra I prior to enrolling or be concurrently enrolled in Algebra I.*

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

Intro to Digital Literacy and Computer Science is a full credit high school computer science course focused on the development of skills in computational thinking and digital literacy. Students will discover how they already act as computational thinkers, digital citizens, collaborators, analysts, and designers within their everyday lives. They will develop and apply these skills within computer science contexts to solve problems or discuss issues related to digital tools, global collaboration, ethical and legal behavior, and security, privacy, and safety in a digital world. Students will engage in individual and collaborative projects to create authentic products. Prerequisite: It is recommended that students have completed Algebra I prior to enrolling or be concurrently enrolled in Algebra I. Introduction to Digital Literacy and Computer Science is designed to be a college preparatory high school course and thus, should provide a rigorous, but accessible, introduction to computer science. No previous computer science experience is required.

COMPUTER SCIENCE A, AP (10157E1000)

Grade: 11 Credit: 1.0

Prerequisite(s): *Exploring Computer Science (10012G1001) or Intro to Dig. Lit. & Comp. Sc. (10011G1000) or Computer Science Principles, AP (10019E1000)*

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one credit college-level course following the curriculum established by the College Board Advanced Placement (AP) Program for computer science; emphasizes object-oriented programming methodology with a concentration on problem-solving and algorithm development.

SENIOR PATHWAY PROJECT: INFORMATION TECHNOLOGY (10997G1001)

Grade: 11-12 Credit: 1.0

Prerequisite(s): *Two Computer Science courses*

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.

Cyber Security Pathway

This program introduces students to the broad field of Cyber Security. Students learn multiple numbering systems, become familiar with Microsoft Windows, and LINUX operating systems. They learn networking, vulnerability assessment, and cyber forensics. Students participate in the national CyberPatriot competition. Opportunities also exist for student internships and industry recognized certifications.

Pathway Sequence

9th Grade	Foundations of Informational Security (10020G1001)
10th Grade	Principles of Informational Security (10020G1002)
11th Grade	Cyber Forensics (10020G1003)
12th Grade	Advanced Cyber Forensics (10020G1004)
Certifications	CompTIA Strata IT Fundamentals, CompTIA Security+, CompTIA Network+, CompTIA A+, CEH, TESTOUT Linux PRO, TESTOUT Routing PRO, TESTOUT Security PRO, TESTOUT Switching PRO, TestOut IT Fundamentals Pro

FOUNDATIONS OF INFORMATIONAL SECURITY (10020G1001)

Grade: 9 Credit: 1.0

Co-requisite(s): Must be concurrently enrolled in Algebra I or higher-level math

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

This course introduces students to the field of Cyber Security. Students will become familiar with Microsoft Windows and Linux Operating Systems. They will learn to use multiple numbering systems and how these systems are used in network addressing and operating system configuration. Students will also gain experience in the areas of vulnerability identification, risk assessment, risk mitigation techniques, Wi-Fi security, IP Addressing, and Informational Ethics. This course is weighted 10 points on a 100-point scale.

PRINCIPLES OF INFORMATIONAL SECURITY (10020G1002)

Grade: 10 Credit: 1.0

Prerequisite(s): Foundations of Informational Security

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

This course introduces students to computer network systems that are most commonly the focus of attack. Students will build and configure the common elements found on the Internet to include database servers, web servers, and web application servers. Students will be introduced to remote access terminal shells which will be vital toward penetration testing and attack vectors. This course is weighted 10 points on a 100-point scale.

CYBER FORENSICS (10020G1003)

Grade: 11 Credit: 1.0

Prerequisite(s): Principles of Informational Security

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

This class covers the methodologies behind cyber-attacks and the various types of attack techniques. Students will participate in hands-on lab exercises using the latest attack tools and learn to evaluate the potential vulnerabilities of network targets. Students will be required to participate on a competitive cyber team. This course is weighted 10 points on a 100-point scale.

ADVANCED CYBER FORENSICS (10020G1004)

Grade: 11-12 Credit: 1.0

Prerequisite(s): Cyber Security and approval of instructor

Fee(s): \$30 per course, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

This second-year course provides the student with experiences in how to look for the weaknesses and vulnerabilities in target systems and uses the same knowledge and tools as a hacker. This course may lead to the Certified Ethical Hacker certification from the IC-Council. This course is weighted 10 points on a 100-point Scale.



ACADEMY OF HUMAN SCIENCES

Culinary Arts | Recreation, Travel, & Tourism | Teaching and Training

Culinary Arts Pathway

This career pathway is a major in the Career Connections Program. Students are prepared for a variety of careers in culinary arts and the hospitality industry. Introduction to Culinary Arts and Hospitality, Culinary Arts 1, Advanced Culinary Arts, Culinary Senior Project, Travel, and Tourism 1 and 2 are the courses included in this major. The required school-based laboratory for the Culinary Arts pathway is a food service kitchen with a food serving and dining area. Formal presentations and portfolios are developed to showcase students' work. Connecting Experiences are a requirement of the major. Family, Career, and Community Leaders of America (FCCLA), an integral part of the curriculum, enhances leadership development skills and provides opportunities for community service.

Pathway Sequence

9th Grade	Hospitality and Tourism (16001G1000)
10th Grade	Culinary Arts I (16053G1012)
11th Grade	Food, Safety, & Microbiology (3rd and/or 4th Science Credit Eligible) (19254G1000)
12th Grade	Culinary Arts II (16053G1022) AND Baking and Pastry Arts(16056G1000) and/orSenior Pathway Project: Hospitality and Tourism(16097G1001)
Certifications	ProStart National Certificate of Achievement, Certified Guest Services Profession, ServeSafe

HOSPITALITY AND TOURISM (16001G1000)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$50 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course that serves as the prerequisite for all pathways included in the Hospitality and Tourism cluster. Major topics include introduction to hospitality and tourism, recreation, travel and tourism, lodging, restaurant and food and beverage services, safety and sanitation, customer relations, and quality services. The required school-based laboratory for the Hospitality and Tourism cluster is a commercial food service kitchen with a food-serving and dining area. School-based laboratory experiences are essential for students to develop skills in the hospitality and tourism industry.

CULINARY ARTS I (16053G1012)

Grade: 10 Credit: 1.0

Prerequisite(s): Hospitality and Tourism (16001G1000)

Fee(s): \$50 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$65 total

Culinary Arts I will introduce students to basic food production, management, and service activities in both the back- and front-of-the-house. Emphasis is placed on sanitation, safety, and basic food preparation. Skills in mathematics, science, and communication are reinforced in this course.

FOOD, SAFETY, AND MICROBIOLOGY (19254G1000)

Grade: 11 Credit: 1.0

Prerequisite(s): Culinary Arts I (16053G1012)

Fee(s): \$50 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$65 total

Students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership and take advantage of the opportunities afforded by Career and Technical Student Organizations. Students will learn and practice essential skills and participate in supervised projects which allow them to put into practice the skills and knowledge acquired in the classroom, and lab. Foundational standards are to be incorporated throughout the course. This course may lead to ServSafe Manager Certification.

CULINARY ARTS II (16053G1022)

Grade: 12 Credit: 1.0

Prerequisite(s): Culinary Arts I (16053G1012)

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

Culinary Arts II provides advanced experiences in food production, management, and service. Topics include food service operations, advanced food production, and professionalism. Skills in mathematics, communication, creative thinking, and entrepreneurship are reinforced in this course.

BAKING AND PASTRY ARTS (16056G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): Culinary Arts I (16053G1012)

Fee(s): \$50 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$65 total

This is a one-credit course designed to provide the principles of baking and pastry techniques. The course includes baking technologies, equipment, preparation procedures, production methods, pastry methods, chocolate and candy productions, science of bread baking, confections and desserts, showpieces, cost control, food safety, and presentation techniques to create fundamental baking to the latest pastry trends. Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

SENIOR CAREER PATHWAY PROJECT: HOSPITALITY AND TOURISM (16097G1001)

Grade: 12 Credit: 1.0

Prerequisite(s): Food, Safety, and Microbiology (19254G1000)

Fee(s): \$50 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$65 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.

Recreation, Travel, and Tourism Pathway

This program integrates management principles and procedures for the travel and tourism industry as well as recreation and sports programming, airlines, international travel, cruising, lodging, recreation, amusements, attractions, and resorts. Within this pathway, students can pursue a national sanitation certification and industry certification.

Pathway Sequence

9th Grade	Hospitality and Tourism (16001G1000)
10th Grade	Event Planning & Management (16202G1001)
11th Grade	Travel and Tourism I (16151G1000)
12th Grade	Travel and Tourism II (16152G1000) And Sports, Recreation, and Entertainment Management (16201G1000) and/or Senior Pathway Project Hospitality and Tourism (16097G1001)
Certifications	Certified Front Desk Representative, Certified Guest Service Professional, Certified Hospitality and Tourism Professional (must pass the final exam for Year 1 and Year 2, complete 100 hours of work experience, and then apply for credential), ServSafe Manager

HOSPITALITY AND TOURISM (16001G1000)

Grade: 10 Credit: 1.0

Prerequisite(s): None

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course that serves as the prerequisite for all pathways included in the Hospitality and Tourism cluster. Major topics include introduction to hospitality and tourism, recreation, travel and tourism, lodging, restaurant and food and beverage services, safety and sanitation, customer relations, and quality services. The required school-based laboratory for the Hospitality and Tourism cluster is a commercial food service kitchen with a food-serving and dining area. School-based laboratory experiences are essential for students to develop skills in the hospitality and tourism industry.

EVENT PLANNING & MANAGEMENT (16202G1001)

Grade: 10 Credit: 1.0

Prerequisite(s): Hospitality and Tourism (16001G1000)

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

Event Planning and Management is designed for students interested in learning to create and present gatherings for groups of people to enjoy or attend for corporate goals or individual benefits. The course emphasizes the many facets of this multi-billion-dollar industry, including site selection, financial management, time management, promotion, and catering. Students will organize, plan, and evaluate various meetings and events such as conferences, sporting events, weddings, and workshops.

TRAVEL AND TOURISM I (16151G1000)

Grade: 11 Credit: 1.0

Prerequisite(s): Hospitality and Tourism (16001G1000)

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course focused on the development, research, packaging, promotion, and delivery of a traveler's experiences that may include creating guidebooks, planning trips and events, managing a customer's travel plans, or overseeing a convention center. The prerequisite for this course is Hospitality and Tourism.

TRAVEL AND TOURISM II (16152G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Travel and Tourism I (16151G1000)*

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course designed to provide knowledge and skill in understanding economics, marketing operations, admissions to events, safety and security precautions, and local and regional markets. The prerequisite for this course is Travel and Tourism I.

SPORTS, RECREATION, AND ENTERTAINMENT MANAGEMENT (16201G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Travel and Tourism I (16151G1000)*

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

This is a one-credit course designed to provide students with an opportunity to gain in-depth knowledge and skills related to the growing sports, recreation, and entertainment industries. The concepts of facility design, merchandising, advertising, public relations/publicity, event marketing, sponsoring events, ticket distributions, and careers related to these industries are the major concepts addressed in the class. Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

SENIOR CAREER PATHWAY PROJECT: HOSPITALITY AND TOURISM (16097G1001)

Grade: 12 Credit: 1.0

Prerequisite(s): *Travel and Tourism I (16151G1000)*

Fee(s): \$35 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$50 total

A one-credit course designed for students who have completed a minimum of two career and technical education courses to select an area of interest; engage in in-depth exploration of the area; employ problem-solving, decision-making, and independent learning skills; and present a culminating pathway project before a selected audience.

Teaching and Training Pathway

This program provides students with knowledge and skills needed for teaching and professional training consultant careers. Courses provide an overview of teaching and learning theories; curriculum development; teaching techniques; instructional resources and the use of technology; types of assessments; classroom management strategies; and ethics and professionalism.

Pathway Sequence

9th Grade	Education and Training (19151G1000)
10th Grade	Teaching I (19152G1012)
11th Grade	Teaching II (19152G1022)
12th Grade	Education Training and Internship (19198G1000)
Certifications	Alabama Educator Certification Assessment Program (AECAP) Basic Skills, ETS Praxis Core Academic Skills, Athens State University Education and Training Certification, Google Educator Certification

EDUCATION AND TRAINING (19151G1000)

Grade: 10 Credit: 1.0

Prerequisite(s): None

Fee(s): \$20 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$15 FTA dues (paid once a year, first semester - no waiver) total \$45

A one-credit foundation course designed for students who are interested in pursuing a career in education. The required school-based laboratory is a well-equipped classroom. This course is a prerequisite for Teaching I.

TEACHING I (19152G1012)

Grade: 10 Credit: 1.0

Prerequisite(s): Education and Training (19151G1000)

Fee(s): \$20 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$15 FTA dues (paid once a year, first semester - no waiver) total \$45

A one-credit course that aids students in implementing the teaching and learning processes. The prerequisite for this course is Education and Training. The required school-based laboratory is a well-equipped classroom.

TEACHING II (19152G1022)

Grade: 11 Credit: 1.0

Prerequisite(s): Teaching I (19152G1012)

Fee(s): \$20 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$15 FTA dues (paid once a year, first semester - no waiver) total \$45

A one-credit course that provides students with advanced knowledge and skills used in the education field. The prerequisites for this course are Education and Training and Teaching I. The required school-based laboratory is a well-equipped classroom.

EDUCATION TRAINING AND INTERNSHIP (19198G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): Teaching II and approval of instructor

Fee(s): \$20 course fee, \$15 FCCLA dues (paid once a year, first semester - no waiver) \$15 FTA dues (paid once a year, first semester - no waiver) total \$45

A one-credit course designed for students interested in pursuing an internship experience in an educational field. Students who have completed Teaching II are eligible to enroll in the Education and Training Internship. A school-based laboratory (actual classroom providing grade level subject-matter instruction) is required for the internship.



ACADEMY OF STEM AND ENGINEERING

Engineering (Future)

Engineering Pathway

This career pathway provides students with the opportunity to participate in hands-on project-based learning with real life application. Students learn the engineering design process, computer assisted design, and technical documentation. Students work collaboratively to solve open ended engineering challenges.

Pathway Sequence

9th Grade	Foundations of Engineering and Technology (21005G1000)
10th Grade	Applications of Engineering and Technology (21002G1000)
11th Grade	Capstone of Engineering and Technology (21047G1000)
12th Grade	Computer Engineering and Technology(21014G1000) and CTE Lab in STEM (21997G1000)
Certifications	Autodesk Inventor Certified User, Autodesk-AutoCAD Certified User, Autodesk-Revit Certified User, Autodesk-Fusion 360 Certified User, Microsoft Office- Excel Expert 2019/365, Microsoft Office- Access Expert 2019/365, Microsoft Technology Associate (MTA) - 98- 375 HTML5 Application Development, Microsoft Technology Associate (MTA) - 98- 381 Introduction to using Programming using Python, Microsoft Technology Associate (MTA) - 98- 382 Introduction to Programming using JavaScript, Microsoft Technology Associate (MTA) - 98- 383 Introduction to Programming using HTML & CSS, Microsoft Technology Associate (MTA) - 98- 388 Introduction to Programming using Java, Oracle Certified Associate (OCA) - Java Programmer, SolidEdge Certified Associate, SolidWorks Associate

FOUNDATIONS OF ENGINEERING AND TECHNOLOGY (21005G1000)

Grade: 9 Credit: 1.0

Prerequisite(s): Approval of instructor

Fee(s): \$30 course fee, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one credit course designed to offer students an exploratory view of the engineering profession and the fundamental skills utilized in the field. Students investigate various engineering disciplines and related career paths. Students will develop leadership and teamwork skills through creativity, collaboration, communication, and critical thinking. Additionally, students will increase their understanding of science, technology, engineering, and mathematics (STEM) principles used in problem-solving as they use the engineering design process.

APPLICATIONS OF ENGINEERING AND TECHNOLOGY (21002G1000)

Grade: 10 Credit: 1.0

Prerequisite(s): Foundations of Engineering and Technology (21005G1000)

Fee(s): \$30 course fee, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one-credit course designed to offer students an investigative view of the engineering profession and the fundamental skills utilized in the field. Students continue investigating engineering disciplines and related career paths. Students will expand leadership and teamwork skills through creativity, collaboration, communication, and critical thinking. Additionally, students will increase their understanding of science, technology, engineering, and mathematics (STEM) principles used in problem-solving through the engineering design process.

CAPSTONE OF ENGINEERING AND TECHNOLOGY (21047G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Applications of Engineering and Technology (21002G1000)*

Fee(s): \$30 course fee, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one-credit course designed to allow students to expand and apply previous knowledge to solve engineering problems. In this course, students will conduct research and develop solutions to complete a capstone project in the engineering field. Project-based learning reinforces the application of science, technology, engineering, and mathematics (STEM) concepts and skills. Technology applications are utilized in this course to enable students to visualize, model, prototype, solve, and report on comprehensive design problems. Collaboration and teamwork are vital components of producing the capstone project.

COMPUTER ENGINEERING AND TECHNOLOGY (21014G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Capstone of Engineering and Technology (21047G1000)*

Fee(s): \$30 course fee, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

A one credit course designed to explore the process of taking a software idea and turning it into a profitable product. Students will gain knowledge of the phases of a software life cycle (planning, design, implementation, testing, deployment, and maintenance). Technology will be introduced by exposing students to industry standard tools for implementing the System Development Life Cycle (SDLC) process. This course will be focused on the SDLC but will expose the students to the various architectures used for a successful project. While not required, it is recommended that students have some prior knowledge of programming languages, databases, operating systems, and platforms.

CTE LAB IN STEM (21997G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Capstone of Engineering and Technology (21047G1000)*

Fee(s): \$30 course fee, \$15 TSA dues (paid once a year, first semester - no waiver) \$45 total

This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within STEM through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.



ACADEMY OF HEALTH SCIENCES

Medical Professionals | Sports Medicine

Medical Professionals Pathway

The Health Science Program instructional content incorporates project-and problem-based healthcare practices and procedures to demonstrate knowledge and skills fundamental to a variety of healthcare careers. Knowledge and skills are reinforced and enhanced through co-curricular activities and participation in HOSA – Future Health Professionals and work-based learning opportunities that are age and grade appropriate.

Pathway Sequence

9th Grade	Foundations of Health Science (Health Credit Eligible) (14002G1001)
10th Grade	Human Body Structures & Functions (3rd and/or 4th Science Credit Eligible) (14299G1001)
11/12 th Grade	Intro to Pharmacy (14152G1000)
11/12 th Grade	Operating Room Foundations (14056G1000)
12th Grade	Health Science Internship (14298G1000) and/or Operating Room Foundations(14056G1000)
Certifications	Certified Patient Care Technician (CPCT), Certified Nursing Assistant (CAN), Certified EKG Technician (CET), Lifeguard Certification (American Lifeguard Association or American Red Cross)

FOUNDATIONS OF HEALTH SCIENCE (14002G1001)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$40 class fee, \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

Foundations of Health Science can be substituted for the required Health credit for graduation.

A one-credit foundational course that introduces students to integrated academics, employability and career development skills, legal and ethical issues, communications, safety, and life skills. This course is a prerequisite to all courses in the Health Science cluster.

HUMAN BODY STRUCTURES AND FUNCTIONS (14299G1001)

Grade: 10 Credit: 1.0

Prerequisite(s): Foundations of Health Science (14002G1001)

Fee(s): \$40 course fee \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

A one-credit course designed to help students learn care content that emphasizes the structure and functions of cells, tissues, organs, organization of the human body systems, and medical terminology. Scientific processes, problem-based learning and critical thinking are integral parts of the course.

OPERATING ROOM FOUNDATIONS (14056G1000)

Grade: 11-12 Credit: 1.0

Prerequisite(s): Foundation of Health Science (14002G1001) ; Human Body Structures and Functions (14299G1001)

Fee(s): \$40 course fee, \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

Operating Room Foundations is a one-credit course that introduces students to the exciting and dynamic world of the operating room and exposes students to an array of multidisciplinary specialties and concepts within perioperative medicine. Course content focuses on the knowledge and skills needed to promote patient safety and optimize surgical outcomes. Essential workforce skills and safety will be emphasized, as well as professional ethics and legal responsibilities. Students will ascertain employability skills and soft skills required by business and industry. Upon successful completion of required theory, lab, and simulation, students may be eligible to sit for Patient Care Technician Certification.

INTRODUCTION TO PHARMACY (14152G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): Foundation of Health Science (14002G1001); Human Body Structures and Functions (14299G1001)

Fee(s): \$40 course fee, \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

A one-credit course that introduces students to the pharmaceutical profession. The course covers content related to the history of medicine, mathematics, technology, legal issues, and technical skills.

HEALTH SCIENCE INTERNSHIP (14298G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): Foundations of Health Science, Therapeutic Services, and approval of instructor Fee(s): \$40 course fee,

\$15 malpractice insurance, \$30 HOSA dues (paid once a year, first semester - no waiver) \$85 total

Also needed for class: school scrub uniform, white shoes, and a watch with a second hand. Students who meet the class requirements and have the instructors' approval participate in internships two days per week at Huntsville Hospital and various local medical facilities. Students will research diagnoses, medications, and treatments. Approved students will have the opportunity to intern in the operating room, emergency room, and special units. Specialized skills such as veterinarian procedures, dental procedures, and suturing will be introduced. Must be able to provide your own transportation to internships. REQUIRED PROOF OF: Hepatitis B vaccines, current PPD test, and drug screen.

Sports Medicine Pathway

The Health Science Program instructional content incorporates project- and problem-based healthcare practices and procedures to demonstrate knowledge and skills fundamental to a variety of healthcare careers. Knowledge and skills are reinforced and enhanced through co-curricular activities and participation in HOSA-Future Health Professionals and work-based learning opportunities that are age and grade appropriate.

Pathway Sequence

9th Grade	Foundations of Health Science (Health Credit Eligible) (14002G1001)
10th Grade	Sports Medicine Fundamentals (14062G1003)
11th Grade	Sports Medicine Intermediate (14062G1001)
12th Grade	Sports Medicine Advanced (14062G1002) and/or Health Science Internship (14298G1000)
Certifications	Certified Patient Care Technician (CPCT), Certified Nursing Assistant (CAN), Certified EKG Technician (CET), Lifeguard Certification (American Lifeguard Association or American Red Cross)

FOUNDATIONS OF HEALTH SCIENCE (14002G1001)

Grade: 9 Credit: 1.0

Prerequisite(s): None

Fee(s): \$40 class fee, \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

Foundations of Health Science can be substituted for the required Health credit for graduation.

A one-credit foundational course that introduces students to integrated academics, employability and career development skills, legal and ethical issues, communications, safety, and life skills. This course is a prerequisite to all courses in the Health Science cluster.

SPORTS MEDICINE FUNDAMENTALS (14062G1003)

Grade: 10 Credit: 1.0

Prerequisite(s): Foundations of Health Science (14002G1001)

Fee(s): \$40 course fee \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

Sports Medicine Fundamentals is a one credit course that will provide an overview of the field of sports medicine as well as expose students to fundamental skills. The importance of legal and ethical concerns will be emphasized. Students will learn about career opportunities, medical terminology, safety, assessment, and emergency preparedness in sports medicine.

SPORTS MEDICINE INTERMEDIATE (14062G1001)

Grade: 11 Credit: 1.0

Prerequisite(s): Sports Medicine Fundamentals (140062G1003)

Fee(s): \$40 course fee \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

Sports Medicine Intermediate is a one credit course that teaches fundamental skills to include therapeutic exercise regimens within the field of sports medicine. Students will explore the study of sports medicine and the relationship to risk management and injury prevention. Students will demonstrate an understanding of anatomy and physiology, with emphasis on the musculoskeletal system. The importance of health promotion, wellness, injury and disease prevention will be emphasized. Students will examine sports medicine facilities, policies, procedures, and protocols utilized in patient care.

SPORTS MEDICINE ADVANCED (14062G1002)

Grade: 12 Credit: 1.0

Prerequisite(s): *Sports Medicine Intermediate (14602G1001)*

Fee(s): \$40 course fee, \$30 HOSA dues (paid once a year, first semester - no waiver) \$70 total

Sports Medicine Advanced is a one credit course with strong emphasis on musculoskeletal injuries as well as the psychological and sociological responses to injuries and illness. Students will demonstrate critical thinking skills, patient care skills related to prevention, rehabilitation, and management, and communicate appropriate outcomes through oral and written communication. Course content will include an understanding of basic pathophysiology, kinesiology, and principles of treatment. An analysis of a variety of health situations involved in the sports medicine pathway will be conducted through project-based learning, laboratory, simulation, and clinical experiences.

HEALTH SCIENCE INTERNSHIP (14298G1000)

Grade: 12 Credit: 1.0

Prerequisite(s): *Foundations of Health Science, Therapeutic Services, and approval of instructor* Fee(s): \$40 course fee, \$15 malpractice insurance, \$30 HOSA dues (paid once a year, first semester - no waiver) \$85 total

Also needed for class: school scrub uniform, white shoes, and a watch with a second hand. Students who meet the class requirements and have the instructors' approval participate in internships two days per week at Huntsville Hospital and various local medical facilities. Students will research diagnoses, medications, and treatments. Approved students will have the opportunity to intern in the operating room, emergency room, and special units. Specialized skills such as veterinarian procedures, dental procedures, and suturing will be introduced. Must be able to provide your own transportation to internships. REQUIRED PROOF OF: Hepatitis B vaccines, current PPD test, and drug screen.



ACADEMY OF GOVERNMENT

ARMY JROTC (future)

Army JROTC Pathway

The mission of the Army High School Junior Reserve Officers' Training Corps (JROTC) is to motivate young people to be better citizens. Leadership and management training are emphasized throughout this program to prepare the students for responsible citizenship and to make the student fully aware of opportunities and benefits derived from their participation. In addition to leadership and management training, students also receive training in drill and ceremonies, first aid, geography, study skills, American history, and government. They are given "hands-on" experience in positions requiring progressively higher degrees of leadership and responsibility each year.

There is no active-duty obligation incurred from enrollment in the JROTC program. However, satisfactory completion of the program can provide the following benefits: (a) Improved chance of selection for ROTC scholarships or service academy appointments; (b) Advanced placement in the college ROTC programs; (c) Advanced rank and pay grade in the Active Duty, Reserve, or National Guard Forces; (d) An opportunity to develop leadership and management skills with the ability to live and work cooperatively with others.

The JROTC program also sponsors four varsity sports: Precision Drill Team, Color Guard, Military Skills Team, and Rifle Team. Successful participants are awarded school varsity letters.

JROTC is offered as a one year/1.0 credit course. Students may enter the program during the fall or spring semester of their 9th - 12th grade years. The prerequisite to JROTC I, II, III is: a student must not have a medical condition or impairment that would preclude his/her full participation in JROTC. Students must have completed or be enrolled in JROTC I, II, or III to enroll in JROTC IV.

Army JROTC students receive an embedded credit for Career Preparedness with the successful completion of LET I and LET III. The two courses are embedded within the JROTC courses and together the courses prepare students with content knowledge and skills in the areas of leadership and career development, managerial training, technology skills, and financial literacy. Leadership Education and Training (LET) I: Introduction to Leadership Development presents Citizenship, Introduction to Leadership Theory and Application, Communication Skills, First Aid and Military Customs and Courtesies. LET III: Applied Leadership Development continues the discussion of leadership development and managerial techniques and prepares students with content knowledge and skills in the areas of technology skill applications, managing finances and budgeting, academic planning, and career development, saving and investing, banking and financial institutions, credit and debt, and risk management and insurance. Also, the courses meet the 20-hour online experience requirement. The successful completion of these courses satisfies the graduation requirement as follows:

Career Preparedness: Successful completion of:

LET I (Army JROTC I: 09051G1001)

LET II (Army JROTC II: 09052G1001)

LET III (Army JROTC: 09053G1001) satisfies the required Career Preparedness credit.

Students may also earn a Physical Education/Beginning Kinesiology (formerly known as LIFE PE) credit for successful completion of one year of JROTC.

The same JROTC course may not be used to fulfill the Career Preparedness and Beginning Kinesiology graduation requirement.

Students' grades are based on academic and leadership performance. Academic grades are determined by quiz and examination scores. The leadership grade is based on appearance, attitude, conduct, and leadership and management performance.

All uniforms and textbooks are provided by the United States Army at no cost to the student. Parents become responsible for government-issued items until they are returned at the end of the school year or when the student leaves the program for any reason.

The JROTC program has much to offer young men and women who want to get the most out of their high school years. What they learn in this program will be useful now and in the future.

Pathway Sequence

9th Grade	Army JROTC I - Introduction to Leadership Development (09051G1001)
10th Grade	Army JROTC II – Intermediate Leadership Development (09052G1001)
11th Grade	Army JROTC III – Applied Leadership Development (09053G1001)
12th Grade	Army JROTC IV – Advanced Leadership Development (09054G1001)
Certifications	Army JROTC Certificate, JROTC NOCTI Employability Skills

ARMY JROTC I – INTRODUCTION TO LEADERSHIP DEVELOPMENT (09051G1001)

Grades: 9-12 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 course fee

A one-credit course that provides first-year cadets with classroom and laboratory instruction in the history, customs, traditions, and purpose of Army JROTC. Emphasis is placed on leadership skills, principles, values and attributes, and diversity.

Embedded is: LET I: INTRODUCTION TO LEADERSHIP DEVELOPMENT

This course of instruction presents Citizenship, Introduction to Leadership Theory and Application, Communication Skills, First Aid and Military Customs and Courtesies.

ARMY JROTC II – INTERMEDIATE LEADERSHIP DEVELOPMENT (09052G1001)

Grades: 10-12 Credit: 1.0

Prerequisite(s): JROTC I – Introduction to Leadership Development

Fee(s): \$30 course fee

A one-credit course designed to provide intermediate instruction in leadership and citizenry, and the expansion of skills taught in LET I. Emphasis is placed on communication techniques, cadet challenges, American citizenship, map reading, and the role of the U. S. Army

Embedded is: LET II: INTERMEDIATE LEADERSHIP DEVELOPMENT

This course continues the instruction in Leadership Theory and Application with emphasis on Leadership Development and management skills. Intermediate courses on first aid, geography, earth science, citizenship, American government, and communication are continued.

ARMY JROTC III – APPLIED LEADERSHIP DEVELOPMENT (09053G1001)

Grades: 11-12 Credit: 1.0

Prerequisite(s): JROTC II – Intermediate Leadership Development

Fee(s): \$30 course fee

A one-credit course designed to provide advanced instruction in leadership and citizenry, communication, history and career opportunities, and technology awareness. Students will have hands-on experiences as teacher/leaders within the cadet battalion.

Embedded is: LET III: APPLIED LEADERSHIP DEVELOPMENT

This course continues the discussion of leadership development and managerial techniques and prepares students with content knowledge and skills in the areas of technology skill applications, managing finances and budgeting, academic planning, and career development, saving and investing, banking and financial institutions, credit and debt, and risk management and insurance.

ARMY JROTC IV – ADVANCED LEADERSHIP DEVELOPMENT (09054G1001)

Grade: 12 Credit: 1.0

Prerequisite(s): JROTC III – Applied Leadership Development

Fee(s): \$30 course fee

A one-credit course that provides opportunities for students to demonstrate leadership potential in an assigned command or staff position within the cadet battalion organizational structure. Emphasis is placed on negotiation skills and management principles.

Embedded is: LET IV: ADVANCED LEADERSHIP DEVELOPMENT

This course is the application phase of "hands-on" experience in leadership and management by filling key leadership positions within the Cadet Corps.

ARMY JROTC 2B LEADERSHIP INTRODUCTION TO STEM - (09052G1002)

Grades: 9-12 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 course fee

This course is designed to develop proficiency in health/wellness and CPR techniques, and an appreciation for self-awareness techniques ("Winning Colors"), modern technologies, career opportunities, and role of the U.S. Army, military history, and physical fitness.

ARMY JROTC 3B LEADERSHIP INTRODUCTION TO STEM- (09053G1002)

Grades: 11-12 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 course fee

This course develops an understanding of the justice system (military and civilian), the role of the U.S. Armed forces, safety (hunting and boating), orienteering, physical fitness, new technologies, military history, and motivational learning techniques such as "Power Learning."

ARMY JROTC 4B ADVANCED LEADERSHIP ROBOTICS AND DRONES - (09054G1002)

Grades: 11-12 Credit: 1.0

Prerequisite(s): None

Fee(s): \$30 course fee

This course develops proficiency in command and staff procedures, physical fitness, military parades and ceremonies, citizenship, science and new technologies and communications. Students must demonstrate ability to speak to large audiences, perform staff briefings and prepare staff reports, write resumes, and cover letters, and complete job applications. They must also apply problem solving/decision making skills in leadership and supervisory positions of authority.



Work Based Learning

Work-Based Learning is a structured component of the Career and Technical Education (CTE) curriculum that integrates classroom instruction with productive, progressive, supervised, work-based experiences/apprenticeships (paid) and internships (unpaid) that may be related to a student's career objectives. Content is planned for students through a cooperative arrangement between the school and employer as a component of work-based learning.

Work-Based Experiences/Apprenticeships are paid work experiences and Work-Based Experiences/Internships are unpaid work experiences for eligible 11th and 12th grade students. Student work hours and wages earned are monitored and documented by the student, employer, and the coordinator. Students may earn one or more credits; 140 hours is required for each credit earned.

Prerequisites

Eligible 11th and 12th grade students.

Work-Based Learning will not be placed on a student's schedule until the application process is complete and the student is approved by the Work-Based Learning Coordinator.

- Students must be at least 16 years of age.
- It is recommended, but not required, that a student obtains concentrator status (two courses within a CTE program) prior to enrollment in cooperative education. Students who have not obtained concentrator status must have successfully completed a minimum of one CTE credit or a career preparedness course.
- Students must have a clearly defined career objective.
- Students must have an acceptable attendance, grade, and discipline record as validated by the coordinator (Minimum 2.0 GPA).
- Possesses the knowledge, skills, behavioral qualities, and abilities required for successful employment.
- Have three educator recommendations that may include the teacher of the career cluster course, if applicable.

Scheduling Requirements of Work-Based Learning

Students should be scheduled according to the course numbers below. Students should not be put in duplicate course numbers in the 11th or 12th grade. First use all 4 non-seminar course codes then use ONE of the Seminar course codes the first semester of the Senior year and use the last Seminar course code for the second semester of the Senior year.

COOPERATIVE EDUCATION/WORK-BASED LEARNING I – FIRST CREDIT (22998G1014)

Grades: 11-12 Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION/WORK-BASED LEARNING II – SECOND CREDIT (22998G1024)

Grades: 11-12 Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment (average of four hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION/WORK-BASED LEARNING III – THIRD CREDIT (22998G1034)

Grades: 11-12 Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment (average of four hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION/WORK-BASED LEARNING VI – FOURTH CREDIT (22998G1044)

Grades: 11-12 Credit: 1.0

A one-credit work-based experience requiring a minimum of 140 continuous and successful hours of employment (average of four hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator.

COOPERATIVE EDUCATION SEMINAR/WORK-BASED LEARNING EXPERIENCE I – FIFTH CREDIT (2298G1001)

Grades: 12 Credit: 1.0

A one-credit work-based experience requiring a minimum of 270 continuous and successful hours of employment (average of 15 hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator. Students enrolled in work-based experiences are required to participate in Cooperative Education Seminar one class period per week.

COOPERATIVE EDUCATION SEMINAR/WORK-BASED LEARNING EXPERIENCE II – SIXTH CREDIT (22998G1002)

Grades: 12 Credit: 1.0

A one-credit work-based experience requiring a minimum of 270 continuous and successful hours of employment (average of 15 hours per week) performed under the supervision of a workplace mentor and the work-based learning/cooperative education coordinator. Students enrolled in work-based experiences are required to participate in Cooperative Education Seminar one class period per week.