CAREER AND TECHNOLOGY EDUCATION

(CATE)

COURSE CATALOG

South Carolina Department of Education
Division of College & Career Readiness
Office of Career and Technology Education

Molly Spearman
State Superintendent of Education

2015-2016 School Year

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SOUTH CAROLINA CATE COURSE CATALOG

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SOUTH CAROLINA CATE COURSE CATALOG

INTRODUCTION

The South Carolina Career and Technology Education (CATE) Course Catalog is a listing of CATE courses categorized by career clusters and includes course codes, recommended maximum enrollments, numbers of credits/seat time hours per course, prerequisites, and course descriptions. A credit-bearing course that is not listed in this document is either a locally designed elective course approved by the local board of trustees or a locally designed subject-area course approved by the SCDE. Sixth grade courses listed in the document are not supported with federal Perkins funds.

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The Table of Contents provides a list of CATE courses, categorized by career cluster. A cluster or course section and page number can be quickly found, then immediately accessed without having to scroll or page through the document. Clicking anywhere within the text of a cluster or course title will immediately take you to that cluster or course. To execute a link, move the cursor over the text until a *pointing finger* appears, then click the mouse button.

ADDITIONAL INFORMATION

Refer to the following hyperlinked pages for additional information:

Student Reporting Procedures Manual

The 2015-2016 CATE Student Reporting Procedures Manual is the Office of Career and Technology Education's official guide for PowerSchool data entry and reporting.

South Carolina Licensure Manual

The 2015-2016 South Carolina Licensure Manual provides licensure guidelines.

Required Credentials for Professional Staff Members in the Instructional Programs of South Carolina's Public Schools

The 2015-2016 Required Credentials Manual is a tabular listing of most district office and school positions, along with the required credentials for each of those positions. All professional instructional staff must hold South Carolina educator licenses in order to meet accreditation standards mandated by State Board of Education Regulation 43-300.

 Activity Coding System for the Student Information System (SIS)

The 2015-2016 Activity Coding System includes the standardized codes for courses, instructional activities, and non-instructional activities used in the student information system in South Carolina public schools.

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Agriculture, Food and Natural Resources	William E. Keels 803-896-8873 wkeels@clemson.edu
Arts, Audio-Video Technology and Communications Science, Technology, Engineering and Mathematics Transportation, Distribution and Logistics	B. T. Martin 803-734-3398 btmartin@ed.sc.gov
Architecture and Construction Law, Public Safety, Corrections and Security Manufacturing	Steven Watterson 803-734-8267 SWatterson@ed.sc.gov
Business Management and Administration Finance Information Technology Marketing	Tony Dillon 803-734-7168 tdillon@ed.sc.gov
Arts, Audio-Video Technology and Communications Education and Training Hospitality and Tourism Human Services/Family and Consumer Sciences Science, Technology, Engineering and Mathematics	Eleanor Glover, PhD 803-734-3826 eglover@ed.sc.gov
Health Science	Angel Clark 803-734-0372 aclark@ed.sc.gov
Career Guidance Work-based Learning	Kama Staton 803-734-8415 KStaton@ed.sc.gov

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MIDDLE SCHOOL CAREER CLUSTERS COURSE

Introduction to Career Clusters

Course Code   2830
Recommended Maximum Enrollment   30
Credits   NA
Prerequisite   NA

Introduction to Career Clusters is designed to provide middle schools with a course in which students are introduced to career possibilities in the sixteen national career clusters adopted by the South Carolina Department of Education. Students will have an opportunity to explore job tasks and career opportunities in each cluster while identifying pathways from high school to post-secondary education and the workplace. Students will learn skills needed for success in college and careers with relevance to academic standards. This course is exposure to help each student gain an understanding of careers in order to assist in the development of an initial Individual Graduation Plan (IGP) in the 8th grade.
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AGRICULTURE, FOOD, AND NATURAL RESOURCES
MIDDLE SCHOOL

Introduction to Agriculture – 6th Grade

Course Code   1856
Recommended Maximum Enrollment   30
Credits   NA
Prerequisite   NA

This course is designed to develop in middle school students an awareness of the relationships between agriculture and science. Major concepts covered in the course include an awareness of agriculture, the world of work, agribusiness careers, human relations, and scientific principles applied in agriculture. The course is offered on a semester or less basis for sixth-grade students, and units include Orientation to Agriscience, Plants and Animals in Agriscience, Communication Skills, Orientation to Agricultural Technology, Orientation to Ecology and Conservation, and Orientation to Agriscience Careers.

Introduction to Agriculture – 7th Grade

Course Code   2856
Recommended Maximum Enrollment   30
Credits   NA
Prerequisite   NA

This course is designed to assist students in exploring science as it relates to agriculture. Through well planned instructional activities, students have the opportunity to develop an understanding of human relations, communication, the importance of agriculture to the economy, and key scientific terms related to the field of agriculture concepts. The course is offered on a semester or less basis for seventh-grade students, and units include Exploration of Agriscience, Recognizing the Importance of Agriculture/Agriscience, Exploration of Natural Resources and the Environment, Exploration of Science Process in Agriculture, Soil and Plant Science, Animal Science, Introduction to Basic Laboratory Principles, and Personal Development Through Agriscience Activities.

Introduction to Agriculture – 8th Grade

Course Code   2856
Recommended Maximum Enrollment   30
Credits   NA
Prerequisite   NA

This course is designed to allow students to apply scientific principles to the field of agriculture in a laboratory setting. Students are introduced to new technology and its impact on agriculture. An introduction to regional and/or international agriculture and marketing concepts in agriculture are also included. The course is offered on a semester or less basis for eighth-grade students.

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AGRICULTURE, FOOD, AND NATURAL RESOURCES
SECONDARY

Agribusiness and Marketing

Course Code	5600
Recommended Maximum Enrollment	30
Credits	1 (120 hours)
Prerequisite	One of the following courses: Agricultural Science and Technology, Agricultural Mechanics and Technology, Environmental and Natural Resources Management, Introduction to Horticulture, **or** Agricultural Biosystems Sciences (depending on the pathway)

Agribusiness and Marketing is designed for the student who plans to seek employment on, manage, or own a farm or who seeks employment in an agribusiness field. Students will be involved in learning activities that generally prepare them to apply the economic and business principles involved in the organization, operation, and management of a farm, ranch, or agribusiness. Typical hands-on learning experiences include applying modern economic and business principles involved in the organization, operation, and management of agricultural businesses, including the production and marketing of agricultural products and services; applying computer application models; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities.

Agricultural and Biosystems Science

Course Code	5691
Recommended Maximum Enrollment	30
Credits	1 (120 hours)
Prerequisite	None

Agricultural and Biosystems Science teaches essential concepts related to skills needed to pursue a career in a biotechnology field. Emphasis is placed on scientific research and development (R&D) and how it can be used to create future advancements in agriculture. Students will learn the basic principles of plant and animal science as well as the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety practices are included, and each student designs and participates in a supervised agricultural experience. Typical hands-on learning experiences include performing research on the basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in FFA activities.

Agricultural Crop Production and Management

Course Code	5614
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural Biosystems Science

The Agricultural Crop Production and Management course prepares students to operate enterprises producing cereal grain, fiber, forage, oilseed, tree fruits and nuts, small fruits, vegetables and other plant products and includes instruction in soils, plant physiology, crop cultivation practices, plant diseases, pest management, harvesting, and marketing.

Agricultural Mechanics and Technology

Course Code	5660
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

The Agriculture Mechanics and Technology course is designed as an introductory course to the Agriculture Mechanics Career Pathway. In addition, it provides development of general mechanical skills, which are required in all areas of Agricultural Education. Typical instructional activities include hands-on experiences in woodworking, metalworking, welding, small engine repair, basic farm and homestead improvements, participating in personal and community leadership development activities, planning and implementing a relevant school-to-work transition experience, and participating in FFA activities.

Agricultural Mechanics and Technology for the Workplace 1

Course Code	5604
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	None

The Agriculture Mechanics and Technology for the Workplace 1 course is designed as an introductory course to the Agriculture Mechanics Career Pathway. Typical instructional activities include hands-on experiences in woodworking, metalworking, welding, small engine repair, basic farm and homestead improvements, participating in personal and community leadership development activities, planning and implementing a relevant school-to-work transition experience, and participating in FFA activities.

Agricultural Mechanics and Technology for the Workplace 2

Course Code	5605
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	Agricultural Mechanics and Technology for the Workplace 1

Agricultural Mechanics and Technology for the Workplace 2 combines subject matter and activities to teach technical knowledge and skills required for entry-level positions in selling, selecting, and servicing agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery equipment, structures, and utilities. Courses in the Agricultural Mechanics and Technology program are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training post high school.

Agricultural Power Mechanics

Course Code	5610
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Mechanics and Technology

The courses in Agricultural Mechanics are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and servicing agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery equipment, structures and utilities. Typical instructional activities include hands-on experiences with agricultural power units, participation in personal and community leadership development activities, and planning and participation in FFA activities.

Agricultural Science and Technology

Course Code	5624
Recommended Maximum Enrollment	30
Credits	1 (120 hours)
Prerequisite	None

The Agricultural Science and Technology course teaches essential concepts and understanding related to plant and animal life including biotechnology, the conservation of natural resources, and the impact of agriculture and natural resource utilization on the environment. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety and agricultural mechanical technology are included as a part of the instructional program. Each student is required to design and participate in a supervised agricultural experience.

Agricultural Science and Technology for the Workplace

Course Code	5620
Recommended Maximum Enrollment	30
Credits	2 (240 hours)
Prerequisite	None

The Agricultural Science and Technology for the Workplace course teaches essential concepts and understanding related to plant and animal life including biotechnology, the conservation of natural resources, and the impact of agriculture and natural resource utilization on the environment. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety, and agricultural mechanical technology are included as a part of the instructional program. Each student is required to design and participate in a supervised agricultural experience.

Agricultural Structural Mechanics

Course Code	5611
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Mechanics and Technology

The courses in Agricultural Mechanics are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and constructing structures and utilities. Typical hands-on instructional experiences include the planning and selection of materials for the construction of agricultural facilities, the mechanical practices associated with irrigation and water conservation, erosion control, metal fabrication, participation in personal and community leadership development activities, and planning and participation in FFA activities.

Animal Science

Course Code	5603
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology

Animal Science provides an overview of the animal science industry, including information on the biological makeup of various species of agricultural livestock. It also provides students with beneficial information on animal behavior before they decide to embark on a career in Animal Science. Animal Science is recommended as a prerequisite for other courses in Animal Science. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of farm animals and farm animal products for economic, recreational, and therapeutic uses; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities.

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Animal Science for the Workplace 1

Course Code	5608
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	None

Animal Science for the Workplace 1 is designed to teach technical knowledge and skills for entry-level positions in an animal production enterprise by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of farm and companion animals. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of animals and animal products for economic, recreational, and therapeutic uses; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities.

Animal Science for the Workplace 2

Course Code	5609
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	Animal Science for the Workplace 1

The Animal Science for the Workplace 2 course covers animal care and veterinary science and is designed to teach technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field. Typical instructional activities include hands-on experiences with cats, dogs, rabbits, fish, etc.; participating in personal and community leadership development activities; and planning a relevant school-to-work transition experience.

Aquaculture

Course Code	5663
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology, Agricultural Biosystems Science **or** Environmental and Natural Resources Management

The Aquaculture course is designed to teach knowledge and skills required for job entry into alternative agriculture through the husbandry of aquatic plants and animals. The ultimate objective of this course is to help students plan, build, stock, and run aquaculture facilities of varied sizes. Aquaculture projects require planning and management comparable to any other commercial endeavor. Typical learning activities include selecting a site, evaluating soil types, selecting equipment and planning a facility, managing water quality to promote good health and growth of selected aquatic species, participating in FFA personal and leadership development activities, and planning and conducting a supervised occupational experience program relevant to aquaculture.

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Biosystems Mechanics and Engineering
Course Code   5692
Recommended Maximum Enrollment   20
Credits   1 (120 hours)
Prerequisite   Agricultural and Biosystems Science **and/or**
                                                       Agricultural Mechanics and Technology

The Biosystems Mechanics and Engineering course is designed to teach basic physical science skills in relation to Agricultural Engineering. In addition, it provides for the development of general mechanical skills that are required in all areas of Agricultural Education. Typical instructional activities include hands-on experiences in developing research projects to examine ways to utilize agricultural crops in unique ways, to include the development of biofuels and other alternative energy sources and to discover new uses for agricultural products. In addition, students will participate in personal and community leadership development activities, plan and implement a relevant school-to-work transition experience, and participate in FFA activities.

Biosystems Technology 3
Course Code   5695
Recommended Maximum Enrollment   20
Credits   1 (120 hours)
Prerequisite   Agricultural and Biosystems Science **and** Biosystems
                                                       Mechanics and Engineering

The Biosystems Technology 3 course expands upon information and material introduced in the Agricultural and Biosystems Science and Biosystems Mechanics and Engineering courses. Content focuses on biological and engineering sciences important to the bioprocessing and biofuels industry, including microbial concepts, reactor design, and laboratory techniques inherent. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and laboratory safety are included. Each student is required to design and participate in a supervised agricultural experience. Typical hands-on learning experiences include performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in FFA activities.

Biosystems Technology 4
Course Code   5696
Recommended Maximum Enrollment   20
Credits   1 (120 hours)
Prerequisite   Agricultural and Biosystems Science, Biosystems
                                                       Mechanics and Engineering **and** Biosystems
                                                       Technology I

The Biosystems Technology 4 course introduces the major unit operations and technology used in bioprocessing, including heat exchangers, bioreactors, pumps, and cell/product separation systems. The content directly expands upon information and material introduced in the Agricultural and Biosystems Science and Biosystems Mechanics and Engineering courses. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world.

Basic personal and community leadership and laboratory safety are included. Each student is required to design and participate in a supervised agricultural experience. Typical hands-on learning experiences include performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in FFA activities.

Biosystems Technology Career Development 1

Course Code	5693
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	None

Biosystems Technology Career Development 1 is designed to teach essential concepts and understanding related to skills required to pursue a career in a biotechnology field. Emphasis is placed on scientific research and development (R&D) and how it can be used to create future advancements in Agriculture. In addition, the course teaches basic mechanical and engineering skills and their application to scientific research. Basic principles of plant and animal science as well as the role of agriculture in our society and the importance of agriculture to the welfare of the world are also included. Basic personal and community leadership and safety practices are included, and each student is required to design and participate in a supervised agricultural experience.

Biosystems Technology Career Development 2

Course Code	5694
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	Biosystems Technology Career Development 1

The Biosystems Technology Career Development 2 course expands upon information and material introduced in the Level 1 course. Content focuses on biological and engineering sciences important to the bioprocessing and biofuels industry, including microbial concepts, reactor design, and laboratory techniques inherent. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and laboratory safety are included as a part of the instructional program, and each student is required to design and participate in a supervised agricultural experience.

Cattle Production

Course Code	5646
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural and Biosystems Science

The Cattle Production course is designed to teach technical knowledge and skills for entry-level positions in an animal production enterprise by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of cattle. Typical hands-on instructional experiences include the principles and practices essential in the production and

management of cattle and cattle products for economic, recreational, and therapeutic uses; participation in personal and community leadership development activities; planning and implementation of a relevant school-to-work transition experience; and participation in FFA activities.

Environmental and Natural Resources Management

Course Code	5626
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

Environmental and Natural Resource Management is the introductory course for the Environmental and Natural Resources Career Pathway. It is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of natural resources such as air, soil, water, land, forest, and wildlife for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes. Typical learning activities include constructing a model watershed; identifying and/or measuring the levels of air, water, noise, and solid waste pollution in a selected site; participating in hands-on experiences with site analysis; evaluating competing interests; and analyzing biological and physical aspects of the environment and environment-related issues including methods of abating and controlling pollution. Students participate in personal and community leadership development activities, plan and implement a relevant school-to-work transition experience, and participate in FFA activities.

Environmental and Natural Resources Management for the Workplace 1

Course Code	5628
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

Environmental and Natural Resource Management for the Workplace 1 is the introductory course for the Environmental and Natural Resources Career Pathway. It is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of natural resources such as air, soil, water, land, forest, and wildlife for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes. Typical learning activities include constructing a model watershed; identifying and/or measuring the levels of air, water, noise, and solid waste pollution in a selected site; participating in hands-on experiences with site analysis; evaluating competing interests; and analyzing biological and physical aspects of the environment and environment-related issues including methods of abating and controlling pollution. Students participate in personal and community leadership development activities, plan and implement a relevant school-to-work transition experience, and participate in FFA activities.

Environmental and Natural Resources Management for the Workplace 2

Course Code	5629
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	Environmental and Natural Resources Management for the Workplace 1

Environmental and Natural Resources Management for the Workplace 2 is the second level course designed for programs in the Environmental Natural Resources Career Pathway. It is a combination of subject matter and planned learning experiences on the principles of conservation and/or improvement of forest and wildlife resources for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes. Typical forestry hands-on instructional activities include experiences in assessing environmental factors affecting forest growth; cruising timber; planting trees; managing an established forest; selecting, grading, and marketing forest raw materials for converting into a variety of consumer goods; harvesting timber or pulpwood; operating and maintaining equipment; and managing forests for multiple purpose uses such as game preserves and recreation. Typical wildlife management hands-on instructional activities include experiences in analyzing problems and developing site plans, including the essential elements, concepts, and skills related to wildlife management; understanding basic ecological concepts; implementing habitat management practices; identifying wildlife and fish species; and analyzing policies, laws, and regulations and using natural resources for outdoor recreation. Students also participate in personal and community leadership development activities, plan and implement a relevant school-to-work transition experience, and participate in FFA activities.

Equine Science

Course Code	5679
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural and Biosystems Science

Equine Science teaches essential concepts and provides practical experience related to the care taking and production of horses. Instruction emphasizes knowledge and understanding of the importance of maintaining, selecting, and managing horses. Basic methods and safety techniques are included in this course. Typical instructional activities include hands-on experiences in saddling, bridling, grooming, and judging horses; feeding and health techniques; and housing design.

Equipment Operation and Maintenance
Course Code	5621
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology**,** Agricultural Biosystems Science**,** Agricultural Mechanics and Technology **or** Introduction to Horticulture

Equipment Operation and Maintenance teaches students how to operate and maintain equipment commonly used in the agricultural industry. It includes equipment used in four of the Agriculture, Food and Natural Resources pathways: Horticulture, Plant and Animal Systems, Environmental and Natural Resources Management, and Agricultural Mechanics and Technology. Typical instructional activities include hands-on experiences with agricultural power units; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities.

Farm Animal Production
Course Code	5647
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural Biosystems Science

Farm Animal Production teaches technical knowledge and skills for entry-level positions in an animal production enterprise by developing students' competency in the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of farm animals. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of farm animals and farm animal products for economic, recreational, and therapeutic uses; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities.

Floriculture
Course Code	5634
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture

Floriculture teaches technical knowledge and skills for entry-level positions in the production, processing, and distribution of flowers, foliage, and related plant materials, including best management practices in field and greenhouse production of flowers and related plant materials and the arrangement of plant materials for ornamental purposes. Typical instructional activities include hands-on experiences with planning, designing, and growing representative flower crops; preparing and analyzing growing medium; tissue culture; alternative propagation methods; greenhouse

management practices including environmental controls; participating in personal and community leadership development activities; planning and implementing a relevant school-to-work transition experience; and participating in FFA activities. The instructor selects units of instruction based on a local needs assessment.

Food Processing

Course Code	5657
Recommended Maximum Enrollment	30
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural **and** Biosystems Science

Food Processing generally prepares individuals to process food and nonfood products and to inspect those products preparatory to marketing. The course also includes instruction in the characteristics and properties of agricultural products and of agriculture-related processing techniques and skills (including quality control and mechanical operations involved in marking, grading, inspecting, packaging, storing, and marketing). Typical learning activities include cutting meat; packaging, canning, testing, and grading food products; participating in FFA contests or other club activities; and planning and conducting a supervised practice program or occupational work experience program related to agricultural products.

Forestry

Course Code	5642
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Environmental and Natural Resources Management

Forestry teaches technical knowledge and skills for entry-level positions in the production, protection, and management of timber and specialty forest resources. Typical instructional activities include hands-on experiences in assessing environmental factors affecting forest growth; cruising timber; planting trees; managing an established forest; selecting, grading, and marketing forest raw materials for converting into a variety of consumer goods; harvesting timber or pulpwood; operating and maintaining equipment; and managing forests for multiple purpose uses such as game preserves and recreation. Students participate in personal and community leadership development activities, plan and implement a relevant school-to-work transition experience, and participate in FFA activities.

Golf Course Technology

Course Code	5667
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture

Golf Course Technology is designed to qualify the students completing the program for job entry into golf course and turf fields, as well as to continue advanced training post high school. A combination of subject matter and activities teaches technical knowledge and skills for entry-level

positions. Typical instructional activities include hands-on experiences with agricultural power units, the planning and selection of materials, the mechanical practices associated with irrigation and water conservation, erosion control, participation in personal and community leadership development activities, planning and implementation of a relevant supervised agricultural experience, and participation in FFA activities.

Horticulture for the Workplace 1

Course Code	5652
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	None

Horticulture for the Workplace 1 includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Horticulture for the Workplace 2

Course Code	5653
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	Horticulture for the Workplace 1

Horticulture for the Workplace 2 is the second level course designed for programs involved in the Horticulture Career Pathway. The course is a combination of subject matter and planned learning experiences on the principles involved in the related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Introduction to Horticulture

Course Code	5650
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

The Introduction to Horticulture course is designed to be an introduction to the Horticulture pathway. It is recommended as a prerequisite for all other horticulture courses. This course includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Introduction to Veterinary Science
Course Code	5613
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural Biosystems Science

In this advanced animal science course, students will explore the field of veterinary medicine. Students will study the role of a veterinarian and veterinary technician in the diagnosis and treatment of animal diseases. Topics to be discussed include: veterinary terminology, anatomy and physiology, pathology, genetics, handling and restraint, and physical examinations along with common surgical skills. Students will engage in a variety of laboratory activities and will participate in shadowing and/or other school-to-work experiences.

Landscape Technology
Course Code	5670
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture

The course in Landscape Technology is designed to qualify the student completing the course for job entry into landscaping fields or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and servicing.

Nursery, Greenhouse, and Garden Center Technology
Course Code	5672
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture

The course in Nursery, Greenhouse and Garden Center Technology includes organized subject matter and practical experiences related to the operation and management of nursery, greenhouse or a garden center   Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing "green industry" enterprises.

Outdoor Recreation
Course Code	5602
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Environmental and Natural Resources Management

The Outdoor Recreation course is a combination of subject matter and planned learning experiences on the principles involved in outdoor safety, planning outdoor recreational activities,

designing parks and special use areas, and outdoor recreational resources on public lands. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes.

Small Animal Care

Course Code	5612
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology **or** Agricultural and Biosystems Science

The Small Animal Care course is designed to teach technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field.

Soil and Water Conservation

Course Code	5627
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology**,** Agricultural and Biosystems Science, Environmental and Natural Resources Management **or** Agricultural Mechanics and Technology

The Soil and Water Conservation course is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of soil and water resources for economic and recreational purposes.

Soils and Soilless Research

Course Code	5630
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology, Agricultural and Biosystems Science, Environmental and Natural Resources Management **or** Introductory Horticulture

This course is designed to teach students the science involved in growing crops in both soil and soilless production systems. Students learn the importance of soil chemistry and composition as it relates to the growth of economically important crops. Students investigate common agricultural practices as well as alternative methods for growing crops to include hydroponic techniques. Students are also introduced to experimental research using the principles of experimental design.

Sports Turf Management

Course Code	5655
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture

Sports Turf Management course is designed to teach technical knowledge and skills for entry-level positions in the Sports Turf Management career field. The principles and practices involved in establishing, managing, and maintaining grassed areas for recreational purposes are studied.

Turf and Lawn Management

Course Code	5654
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture

The Introduction to Horticulture course is designed to be an introduction to the Horticulture pathway. It is recommended as a prerequisite for all other horticulture courses. This course includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Wildlife Management

Course Code	5674
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Environmental and Natural Resources Management

The Wildlife Management course is designed to be introductory course for the Environmental and Natural Resources pathway. The course is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of natural resources such as air, soil, water, land, forest, and wildlife for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes.

Agriculture, Food and Natural Resources, Work-Based Credit

Course Code	5690
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

The Agriculture, Food and Natural Resources work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

ARCHITECTURE AND CONSTRUCTION

Building Construction Cluster 1, 2, 3, 4
Course Codes   6060, 6061, 6062, 6063
Recommended Maximum Enrollment   24
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   No prerequisite for Level 1; Courses taken
                                                    sequentially

Building Construction prepares individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties. Includes instruction in masonry, carpentry, electrical and power transmission installation, building/construction finishing, management, inspection, and other construction-related applications.

Cabinetmaking 1, 2, 3, 4
Course Codes   6080, 6081, 6082, 6083
Recommended Maximum Enrollment   24
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   No prerequisite for Level 1; Courses taken
                                                    sequentially

Cabinetmaking courses provide students with experience in constructing cases, cabinets, counters, and other interior woodwork. Students learn to distinguish between various types of furniture construction and their appropriate applications, and how to use various woodworking machines and power tools for cutting and shaping wood. Cabinetmaking courses cover the different methods of joining pieces of wood, how to use mechanical fasteners, and how to attach hardware. Initial topics may resemble those taught in Woodworking courses; more advanced topics may include how to install plastic laminates on surfaces and how to apply spray finishes.

Carpentry 1, 2, 3, 4
Course Codes   6091, 6092, 6093, 6094
Recommended Maximum Enrollment   24
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   No prerequisite for Level 1; Courses taken
                                                    sequentially

Carpentry courses provide information related to the building of wooden structures, enabling students to gain an understanding of wood grades and construction methods and to learn skills such as laying sills and joists; erecting sills and rafters; applying sheathing, siding, and shingles; setting door jambs; and hanging doors. Carpentry courses may teach skills for rough construction, finish work, or both. Students learn to read blueprints, draft, use tools and machines properly and safely, erect buildings from construction lumber, perform finish work inside of buildings, and do limited cabinet work. Carpentry courses may also include career exploration, good work habits, and employability skills.

SOUTH CAROLINA CATE COURSE CATALOG

Electricity 1, 2, 3, 4
Course Codes	6287, 6288, 6289, 6290
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Electricity—Comprehensive courses provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in the electrical field. These courses typically include AC and DC circuitry, safety, and the National Electrical Code and may cover such skills as those involved in building circuits; wiring residential, commercial, and/or industrial buildings; installing lighting, power circuits, and cables; and estimating job costs. As students progress, their projects become more complex and expansive. In these courses, safety is stressed, and a career exploration component may be offered.

Home System Technology
Course Codes	5330
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	None

Home System Technology targets skills in the multiple industries that touch the home, including technology integrators, security system technicians, cable, satellite, telecommunications, and A/V installers, electricians, and network administrators. Students will develop the skills and knowledge of basic PC hardware, hand and tool skills, safety precautions, basic electrical awareness, local regulations and building codes. This course leads to the CEA-CompTIA DHTI+ certification.

HVAC Technology 1, 2, 3, 4 (formerly Air Conditioning Refrigeration Technology-ACRT)
Course Codes	6003, 6004, 6005, 6006
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

HVAC Technology courses offer students specialized training related to the design, installation, and repair of air conditioning systems for residential and commercial use. These courses may emphasize the theory and design of electrical, electronic, mechanical, and pneumatic control systems used in air conditioning systems; they might also (or instead) focus on procedures used in troubleshooting, servicing, and installing components of air conditioning systems.

Introduction to Construction Technology
Course Code	6001
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Construction technology provides students with an understanding of how construction impacts

their lives, both socially and professionally. Students will explore and demonstrate an understanding of five elements of construction: Career Opportunities, Design, Measurements, Tools, and Materials

Masonry 1, 2, 3, 4

Course Codes	6250, 6251, 6252, 6253
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Masonry courses enable students to learn to construct interior and exterior walls, columns, doorways, window openings, fireplaces, chimneys, and foundations from brick and concrete block. Along with other activities, students may mix and spread cement and mortar, read blueprints and plans, and estimate materials needed for a project. Other topics may also include how to layout buildings on footings and how to establish grades using a surveying transit.

Plumbing 1, 2, 3, 4

Course Codes	6280, 6281, 6282, 6283
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Plumbing courses provide students with instruction in installing waste and vent systems, water and gas pipes, trim, and fixtures. Skills taught include cutting and joining various types of pipe (for instance, steel, plastic) using various methods (cement, seat method, and so on).

Architecture and Construction, Work-Based Credit

Course Codes	6690
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

The Architecture and Construction work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

ARTS, AUDIO-VIDEO TECHNOLOGY AND COMMUNICATIONS

Fashion Design and Apparel Construction 1
Course Code   5710
Recommended Maximum Enrollment   20
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   None
Ready to create your own look? Tired of having clothes that don't fit? Make a skirt or vest out of your dad's old neckties. Open the world of fashion from your own closet. Fashion Design and Apparel Construction 1 focuses on the study of the fashion and garment industry with emphasis on the basics of design and construction. Students will develop a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contents. Concepts are applied with hands-on learning experiences as students study career pathways, textiles, fashion design, apparel construction, consumer behavior, products, and materials of the fashion industry. Projects are integrated throughout the course work and at least one garment will be completed. South Carolina standards for English/Language Arts, Mathematics, Science, and Social Studies, and Visual Arts are reinforced. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Fashion Design and Apparel Construction 2
Course Code   5711
Recommended Maximum Enrollment   20
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   Fashion Design and Apparel Construction 1
Design and make your own prom dress or outfit! Professionalism is showcased as preparations are made to enter the world of fashion design and apparel construction. Unfold the world of fashion merchandising and marketing. The skills of fashion design and apparel construction are refined. Creativity is on the runway in this hands-on course. Emphasis is placed on the development of problem solving, decision-making and technological applications in a real-world context. South Carolina standards for English/Language Arts, Mathematics, Science, and Social Studies, and Visual Arts are reinforced. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Interior Design 1
Course Code   5455
Recommended Maximum Enrollment   20
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   None
Interior Design 1 focuses on the study of interior planning with emphasis on the basics of design. Students will develop a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contents. Concepts are applied with hands-on learning experiences as students study career paths, design, products, materials, and professionalism.

Projects are integrated throughout the course work. Computer access is strongly recommended for this course. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Interior Design 2

Course Code	5456
Recommended Maximum Enrollment	20
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	Interior Design 1

Interior Design 2 focuses on design applications incorporating business basics of the design industry. Students will have an opportunity to develop advanced skills by learning about green design concepts and the principles and theories of sustainability as they pertain to design decisions, i.e. building materials, and methods, systems, and occupants. Course content consists of career development, industry trends, design applications, client relations, presentation techniques and business practices. Job shadowing, mentorships, internships, and/or apprenticeships are an integral part of this course. Portfolios and projects are integrated throughout the course work. Computer access is strongly recommended for this course. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Architectural Design 1, 2

Course Codes	6170, 6171
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The Architectural Design program prepares students to perform entry-level tasks under the supervision and guidance of architects and/or architectural engineers in the development and preparation of plans for residential and/or commercial buildings. Instruction is given in design technology and techniques, computer-aided design, zoning laws, building codes, cost planning, material requirements, styling, and client preferences. Upon successful completion of the architectural design program, students will be prepared for postsecondary education and entry-level architectural-related careers.

Digital Art and Design 1, 2, 3, 4

Course Codes	6120, 6121, 6122, 6123
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The Digital Art and Design program prepares students for careers in the graphic design field. Skills may be applied in any media, such as print, digital media, product design, packaging, etc. Most of the standards require students to combine text and graphics to communicate an effective message in the format intended for commercial reproduction. Students are also expected to use

industry software and design concepts, principles, and processes to manipulate text and graphics, utilize and output appropriate file formats for Web and print, and meet client expectations.

Introduction to Graphic Communications and Graphic Communications 1, 2, 3, 4

Course Codes	5205, 6200, 6201, 6202, 6203
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The competencies in this accreditation area require that students are competent in their overall understanding of the industry and its major operations, and have the fundamental measurement, math, and interpersonal skills needed for starting a career. The competencies are broken into 11 subsections: introduction, digital file preparation, image capture, color theory, digital file output, press operations, bindery operations, measurement, safety and first aid, basic math, and job application and interpersonal skills. All competencies are theory-based and require students to list, describe, identify, and/or calculate production-related issues, rather than actually demonstrate performance.

Mechanical Design 1, 2

Course Codes	6172, 6173
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The Mechanical Design program prepares students to perform entry-level tasks under the supervision of an experienced drafter or engineer. Instruction includes safety, basic drafting techniques, geometric constructions, sketching, shape description, size description, drawing conventions, computer-aided design, manufacturing processes, applied geometry, and technical illustration. Upon successful completion of the Mechanical Design program, students will be prepared for postsecondary education and entry-level mechanical-related careers.

Media Technology 1, 2

Course Codes	6124, 6125
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

 In the Media Technology program, students will explore the general field of communications and will focus primarily on audio and motion media industries. Students will also learn about related fields such as radio, graphic design, computer graphics, animation, special effects, online media development, advertising, public relations, and corporate communications. Students will get hands-on experience in basic production techniques for audio, video, and film. They will learn how to use industry-standard equipment and will develop skills including writing, directing, producing, and editing video pieces of increasing complexity.

Arts, Audio-Video Technology and Communications, Work-Based Credit
Course Codes   5290
Recommended Maximum Enrollment   NA
Credits   1 (120 hours)
Prerequisite   Completion of two (2) CATE courses/units within
                                                    a program

Arts, Audio-Video Technology and Communications work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

BUSINESS MANAGEMENT AND ADMINISTRATION

Administrative Support Technology
Course Code   5122
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Computer Applications **or** Integrated Business
                                             Applications 1 (IBA 1)
This course is designed to provide an overview of the major responsibilities and tasks in an administrative support position. The objectives of the course are to enhance technical skills; solve business-oriented problems; manage general office tasks; and demonstrate effective supervisory, management, and human relations skills.

Business Law
Course Code   5044
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   None
This course is designed to provide the student with knowledge of the legal environment in which a consumer operates, to provide the student with knowledge of the legal environment in which a business operates, and to provide the student with knowledge of legal principles.

Business Principles and Management
Course Code   5092
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Integrated Business Applications 1 (IBA 1)
Students in Business Principles and Management will develop a foundation in the many activities, problems, and decisions that are intrinsic to the management of a successful business, as well as an appreciation for the importance of these responsibilities. Areas to be examined include business organization, ethical and legal responsibilities, communication, decision-making, personnel, safety, professional development and related careers. By gaining an understanding of these areas, students will be better prepared to enhance the business decisions of tomorrow.

Computer Applications

Course Code	5008
Recommended Maximum Enrollment	24
Credits	.5 (60 hours)
Prerequisite	Keyboarding 5100 **or** successful completion of SCDE state keyboarding proficiency exam

This course is designed to introduce students to software applications that are necessary to live and work in a technological society. The applications covered include word processing, database, spreadsheet, and presentation.

Digital Desktop Publishing

Course Code	5176
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Keyboarding 5100**,** successful completion of SCDE State Keyboarding proficiency examination and Computer Applications, **or** Integrated Business Applications I (IBA 1)

This course brings together graphics and text to create professional level publications. Students create, format, illustrate, design, edit/revise, and print publications. Improved productivity of digitally produced newsletters, flyers, brochures, reports, advertising materials, and other publications is emphasized. Proofreading, document composition, and communication competencies are also included.

Digital Input Technologies

Course Code	5180
Recommended Maximum Enrollment	24
Credits	.5 (60 hours), 1 (120 hours)
Prerequisite	None

This course is designed to introduce the students to new and emerging technologies that are impacting the way we input information into computers and other devices. Students will be introduced to handwriting and speech recognition software. Mobile devices (such as iPhones, iTouches, MyTouches, and Blackberrys) will be introduced as a tool for personal and business applications. Students will also have an opportunity to explore digital imaging and the various methods of input available for inclusion in documents.

Digital Literacy

Course Code	5181
Recommended Maximum Enrollment	24
Credits	.5 (60 hours)
Prerequisite	None

This course is designed to equip students with many of the needed computer skills to excel in a digital world. Students will be exposed to a broad range of computer technology from basic hardware/software to applications and the internet. Digital Literacy will support the student with

the concepts in the 8th grade technology proficiency assessment. This course includes two options:

- • Option 1 standards are for students who have not passed a formal keyboarding course. All remaining standards with the exception of Option 2 standards are to be completed.
- • Option 2 standards are for students who have passed a formal keyboarding course. All remaining standards with the exception of Option 1 standards are to be completed.

Digital Multimedia

Course Code	5030
Recommended Maximum Enrollment	24
Credits	.5 (60 hours), 1 (120 hours)
Prerequisite	None

This course covers multimedia concepts and applications utilizing text, graphics, animation, sound, video, and various multimedia applications in the design, development, and creation of multimedia presentations and publications within an interactive environment. Students will create a digital portfolio and other independent projects.

Entrepreneurship

Course Code	5400
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This course is designed to provide students with the knowledge and skills leading to the development of a business plan for small business ownership. An important part of the course will be the incorporation of traditional and non-traditional marketing strategies, technology, staffing, and financial considerations.

Essential Communications

Course Code	5041
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

In the Essential Communications course, students will learn to communicate in a clear, courteous, concise, complete, and correct manner on both personal and professional levels. Competency will be developed in oral, written, interpersonal, technological, and employment communication. Listening skills will be incorporated throughout the course.

Fundamentals of Business, Marketing and Finance

Course Code	5090
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Fundamentals of Business, Marketing and Finance curriculum is designed to encourage students to pursue successful careers in business, marketing, and finance. Students will gain a basic

understanding of business operations and management concepts. This course will increase students' knowledge about corporate enterprise and its role in a global society.

Fundamentals of Project Management

Course Code	5480
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Integrated Business Applications I **and** Business Principles and Management

The Fundamentals of Project Management curriculum is designed to introduce students to processes of initiating, planning/executing, monitoring/controlling, and closing projects. Students will learn the nine knowledge areas of Project Management (integration, scope, time/cost, quality, human resources, risk/procurement management, and communication) through projects, simulations, and work-based scenarios.

Google Applications

Course Code	5007
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Keyboarding 5100 **or** successful completion of SCDE state keyboarding proficiency exam

Google Applications is designed to introduce students to many of the applications that Google offers. The course builds on skills beyond the traditional introduction of computer concepts and incorporates emerging technologies using Google Applications. It will prepare students for learning and working in the 21st century through communication and collaboration tools. Real world, student-centered activities will strengthen students' technology skills in the continually changing online Google community.

Google Basics

Course Code	5011
Recommended Maximum Enrollment	24
Credits	.5 (60 hours)
Prerequisite	None

This course is designed to introduce the student to basic Google tools and applications through the completion of real-world student-centered activities.

Human Resource Management

Course Code	5093
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Teacher Recommendation

This course is designed to provide students with a basic understanding of Human Resources Management and its role in business.

Image Editing 1

Course Code	5340
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Integrated Business Applications 1, Digital Input Technologies **or** Computer Applications

This course is designed to provide the student with the knowledge and skills needed to utilize digital imaging software in editing and designing images and graphics. Students also learn the use of technologies related to digital imaging such as: basic computer operations; file sharing across networks; digital scanning; digital photography; preparing documents for output to various types of media.

Image Editing 2

Course Code	5341
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Image Editing 1

This course is designed to provide the student with advanced and in-depth knowledge and skills necessary for utilizing digital imaging software to edit and design images and graphics. Successful completion of this course will prepare the student to take industry certification test(s).

Integrated Business Applications 1

Course Code	5020
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Keyboarding 5100 **or** successful completion of SCDE state keyboarding proficiency exam

This course is designed to teach students software applications that are necessary to live and work in a technological society. The applications covered include word processing, database, spreadsheet, and presentation. Other content areas may include computer hardware, terminology, and concepts.

Integrated Business Applications 2

Course Code	5021
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Integrated Business Applications 1 (IBA 1)

This course of study is designed to teach the student advanced computer concepts as related to processing data into useful information needed in business situations by using advanced database, spreadsheet, word processing, and presentation software capabilities.

International Business and Marketing
Course Code	5032
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This course is designed to provide a basic understanding of international business operations, international marketing, and economic and cultural concepts to prepare students for the global marketplace.

Keyboarding
Course Code	5100
Recommended Maximum Enrollment	24
Credits	.5 (60 hours)
Prerequisite	None

This course is designed to provide an opportunity for students to master the skill of entering alphabetic, numeric, and symbolic information on a keyboard and a ten-key pad using the touch method of key stroking. Emphasis is placed on development of accuracy and speed, proper techniques, and correct fingering. Formatting of basic documents will be introduced.

Logistics and Business Processes
Course Code	5482
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Integrated Business Applications 1 (IBA 1)

For a business, logistics means having the right thing, at the right place, at the right time. This course spans the complete order to cash lifecycle and gives students an overview of the processes involved in order management from its inception to its fulfillment. Students will learn about fundamental logistics concepts and processes including defining items and customers, entering and processing orders, inventory and warehouse operations, shipping and RFID technology, pricing and invoices, and payment processing. Students will have online access to Oracle's virtual company, Vision Enterprises, enabling them to carry out the practices using the same software used by many companies around the world today. Assuming the roles of managers and employees of Vision Enterprises, students will enter new customers and items to the system and understand how inventory is ordered, stored, shipped, and replenished.

Multimedia Basics
Course Code	5010
Recommended Maximum Enrollment	24
Credits	.5 (60 hours)
Prerequisite	None

This course covers basic multimedia concepts and applications utilizing text, graphics, animation, sound, video, and various multimedia applications in the design, development, and creation of multimedia presentations and publications in an interactive environment.

SOUTH CAROLINA CATE COURSE CATALOG

Personal Finance
Course Code   5131
Recommended Maximum Enrollment   24
Credits   .5 (60 hours) or 1 (120 hours)
Prerequisite   None
This course is designed to introduce the student to basic financial literacy skills which includes budgeting, obtaining credit, maintaining checking accounts, analyzing the basic elements of finance, computing payroll, recording business transactions, and applying computer operations to financial management.

Professional and Leadership Development
Course Code   5178
Recommended Maximum Enrollment   24
Credits   .5 (60 hours) or 1(120 hours)
Prerequisite   Recommended current membership in one or more
                                                              of the career and technology education student
                                                              organizations.
The purpose of this course is to help students develop leadership skills necessary for success in business careers through effective communications, problem-solving techniques, and managing resources and meetings. The students will develop an understanding of the need for community service as part of their overall civic and professional responsibilities. In situations where several career and technology student organizations (CTSOs) are represented in the class, preference should not be given to any one student organization. The standards are generic to all of the career and technology education student organizations.

Social Media in Business
Course Code   5034
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Teacher approval **and** successful completion of two
                                                              business education courses
This course introduces students to the current field of social media and prepares them to explore and create successful social media strategies for businesses. It gives students the knowledge, tools, and methods to use different social media tools and networks in a business environment.

Virtual Enterprise 1, 2, 3, 4
Course Code   5150, 5151, 5152, 5153
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   IBA 1 **or** Keyboarding **and** Computer Applications
                                                              prerequisites for Level 1; Levels 2-4 taken
                                                              sequentially
The Virtual Enterprise courses allow students to experience within a simulated business environment all facets of being an employee in a firm. The program allows students to run

simulated offices in their schools and engage in virtual trading with other practice firms and provides students with interdisciplinary instruction and an in-school work experience to develop school-to-career skills.

Business Management and Administration, Work-Based Credit
Course Code	5490
Recommended Maximum Enrollment	NA
Credits	1(120 hours)
Prerequisite	Completion of two (2) CATE courses within a program

Business Management and Administration work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

Child Development 1

Course Code	5800
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Child Development 1 focuses on the physical, social, emotional, and cognitive growth and development of children. Emphasis is placed on helping students acquire knowledge and skills essential to the care and guidance of children. Students learn to create environments that promote optimal development. Factors influencing a child's development from conception through childhood are explored. Opportunities for service and project-based learning are incorporated throughout the course. Integration of the Family and Consumer Sciences student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Child Development 2

Course Code	5801
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Child Development 1

Child Development 2 is a specialized course that provides students with knowledge and skills related to children's growth and development. Students are equipped to develop positive relationships with children and effective care giving skills. Emphasis is on promoting the well-being and healthy development of children and strengthening families in a diverse society. Opportunities to investigate careers related to the care and education of children are provided. Observations, job shadowing, and service learning experiences are encouraged. This course builds on skills and information introduced in Child Development 1. Skills acquired in Child Development 1 and 2 provide a foundation for further studies and employability in Childcare and Early Childhood Education. Critical thinking and practical problem-solving are emphasized in a co-curricular approach that incorporates principles of mathematics, science, writing, and communications**.** Integration of the Family and Consumer Sciences student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Early Childhood Education 1

Course Code	5700
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	None

Early Childhood Education 1 is designed to provide students with hands-on opportunities to actively explore and observe the world of children and prepare them for educational and administrative careers in the field. This course provides an in-depth study of career paths, developmentally appropriate practices, curriculum development, safe and healthy learning environments, and collaborative relationships. Participation in student organizations, Educators

SOUTH CAROLINA CATE COURSE CATALOG

Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) greatly enhance the learning experience.

Early Childhood Education 2

Course Code	5701
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	Early Childhood Education 1

Early Childhood Education 2 is an advanced course focusing on the competencies needed to plan, guide, and care for young children in a safe, healthy, and developmentally appropriate environment. Students can acquire certification in pediatric safety, CPR, and first aid. Students interact with professionals in the field and participate in various school-to-work activities. Student laboratory/field experiences may be school based or in the community and include job shadowing and internships. This course may be taken for dual credit or may be articulated to local technical colleges (ECD 135: Health, Safety, and Nutrition; ECD 101: Introduction to Early Childhood Development). Students who successfully complete ECD 101 will be eligible for the South Carolina Early Childhood Credential. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) greatly enhance the learning experience.

Introduction to Early Childhood Education

Course Code	5702
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This course is designed as an introduction of skills required for a career in the care, education and administration of programs for young children. Students will develop skills in areas including career paths, developmentally appropriate practices, safe and healthy learning environments, and collaborative relationships. Academics and employability skills are integrated throughout the course. Units from this course could be applied to education and training, health sciences, business, and human services clusters. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) greatly enhance the learning experience.

Introduction to Teaching 1

Course Code	5703
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	None

Introduction to Teaching 1 is designed to prepare students for employment and/or postsecondary opportunities in the education field. The program provides instruction in the teaching profession,

communication skills, human growth and development, planning and instructional strategies, and school-societal relationships. Technology is integrated throughout the course work. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) greatly enhance the learning experience.

Introduction to Teaching 2

Course Code	5704
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	Introduction to Teaching 1

Introduction to Teaching 2 is an advanced level course that builds on skills developed in Introduction to Teaching Level 1. Students develop a higher level of proficiency through authentic learning experiences. Students plan engaging lessons, enhance communication and presentation skills, explore school-societal relationships, and exhibit professionalism. Technology is integrated throughout the course work. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) greatly enhance the learning experience.

Teacher Cadet - CATE

Course Code	5705
Recommended Maximum Enrollment	24
Credits	1(120 hours)
Prerequisite	Completion of ECE 1 and 2 **or** Intro to Teaching 1 and 2 **and** satisfy the requirements for enrollment in the Teacher Cadet program

The Teacher Cadet Program uses an innovative approach designed to attract talented young people to the teaching profession through a challenging introduction to teaching. The Program seeks to provide high school students with insight into the nature of teaching, the problems of schooling, and the critical issues affecting the quality of education in America's schools. **Note:** The Teacher Cadet – CATE course code should only be used as a part of a CATE Early Childhood Education (ECE) or Introduction to Teaching (IT) Completer.

Education and Training, Work-Based Credit

Course Code	6390
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Education and Training work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

FINANCE

Accounting 1

Course Code	5001
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Completion of Algebra I **or** equivalent with a grade of C or better **and/or** instructor approval.

This course is designed to help the student develop the skills necessary for the highly technical interaction between accounting and business, to develop an understanding of the steps of the accounting cycle as applied to several different kinds of business operations, and to develop an understanding of accounting concepts, principles, and practices. Use of the computer in simulated activities gives the student an opportunity to see the advantages of technology in accounting procedures.

Accounting 2

Course Code	5005
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Accounting 1 with minimum grade of C or better **and/or** instructor approval.

This course expands the student's understanding of accounting subsystems and develops an understanding of various methods of internal control procedures. The student develops competence in using subsidiary ledgers, in preparing financial statements, and in performing end-of-period procedures. The student will demonstrate the use of accounting principles through the use of computer software and simulated activities.

Banking Services

Course Code	5271
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Business Finance **or** Personal Finance

This course is designed to offer a unique approach to understanding the banking services. It provides an introduction to banking services and functions, including business of banking, careers in banking and finance, origins and purpose of banking, money and interest, deposits in banking, negotiable instruments, bank loans, mortgages, commercial lending, specialized bank service, promoting the bank, and security and ethics.

Business Finance

Course Code	5273
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Accounting I

This course is designed to provide students with a foundation in corporate business finance concepts and applications including fundamentals, financial environment, management planning, maintenance and analysis of financial records, long and short term financial activities, financial business activities, financial institutions and banking services, consumer credit, business insurance, technology and financial management, and international finance.

Financial Literacy

Course Code	5282
Recommended Maximum Enrollment	24
Credits	.5 (60 hours)
Prerequisite	None

This course is designed to introduce the student to basic financial literacy skills to help them make responsible financial decisions. Concepts covered include financial planning, bank accounts, credit and loans, wages and taxes, investments, and insurance.

Financial Math

Course Code	5281
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Financial Math will empower students to apply fundamentals of financial preparedness and planning. Financial Math is essential to helping students become informed consumers as they become employed, create budgets, make major purchases, initiate savings plans, manage credit, and make strategic investment decisions.

Insurance

Course Code	5275
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This course is designed to introduce the student to the basic elements of the insurance industry: auto, renter's and homeowner's, health, life, disability and long-term care, and other personal insurances. Career opportunities in the insurance industry will also be discussed. Upon completion of the course, the student will have a background to seek an entry-level position in the insurance industry.

Securities and Investments

Course Code	5277
Recommended Maximum Enrollment	24

Credits	1 (120 hours)
Prerequisite	Business Finance **or** Personal Finance

This course is designed to prepare students to make intelligent investment decisions based on their personal financial needs (or on the needs of a business). Topics include financial planning for various stages; stocks, bonds, mutual funds, real estate, precious metals, gems and collectibles, and futures and options markets.

Finance, Work-Based Credit

Course Code	6190
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Finance work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

<div style="border">

HEALTH SCIENCE

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Biomedical Innovation
Course Code   5583
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Medical Interventions
Biomedical Innovation is the capstone course for the Project Lead the Way Biomedical Sciences program for high school students. Students design innovative solutions for the health challenges of the 21st century. They work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering and public health. They have the opportunity to work on an independent project with a mentor or advisor from a university, hospital, research institution, or the biomedical industry.

Introduction to Emergency Medical Services (Phasing out July 2016)
Course Code   5530
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   None
Introduction to Emergency Medical Services (EMS) is designed to introduce students to the emergency medical field. Through classroom and laboratory instruction, students will gain knowledge in medical, legal and ethical issues; safety and infection control; personal wellness; disaster preparedness; and hazardous materials recognition and response.

Emergency Medical Services 1
Course Code   5531
Recommended Maximum Enrollment   24
Credits   1 (120 hours), 2 (240 hours)
Prerequisite   Successful completion of one of the following:
                                         Introduction to Emergency Medical Services,
                                         Introduction to Health Science, Health Science 1,
                                         and/or teacher recommendation
This course is the first in a sequence of courses. Emergency Medical Services 1 is designed to teach students how to recognize and respond to various emergencies. Students will review basic anatomy and physiology as it relates to injury management and treatment. Students will review basic information needed for all phases of a healthcare professional. Information that students are exposed to will include legal and ethical implications, communications, safety, infection control and professionalism. In this course students will learn what skills are necessary to recognize and care for emergencies in adults, children, and infants until professional medical help arrives. Students will obtain FA/CPR/AED certification. Students will be required to perform light physical activity.

Emergency Medical Services 2

Course Code	5532
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Successful completion of Emergency Medical Services (EMS) 1

This is the second in a sequence of courses. Emergency Medical Services (EMS) 2 is a continuation of EMS 1. The course includes content and skills that first responders need, to provide appropriate initial care, regardless of the type of emergency. EMS 2 stresses the steps to follow in an emergency until more advanced medical personnel arrive. The skills and content taught at this level become more specific and rigorous. Students in this course will be certified in FA/CPR/AED if not certified before course attendance. Recertification may take place as needed. *Successful completion of this course *may* result in First Responder certification available through various national certifying bodies.

Emergency Medical Services 3

Course Code	5533
Recommended Maximum Enrollment	20
Credits	2 (240 hours)
Prerequisite	Completion of Emergency Medical Services 2 course with a grade **of B** or better **and** successful completion of Health Science 3 (or it's substitute) Student must also meet admission requirements of the participating local technical college, if student is dual enrolled.

Emergency Medical Technician-Basic (EMT-B)/EMS 3 serves as an entry-level course in professional health careers. EMT-B is a solid foundation for further study in prehospital care (intermediate and paramedic) nursing, physical and occupational therapy, and premedical studies. EMT-B/EMS 3 provides the student with the knowledge and skills for the emergency medical field, responsibilities, first aid measures, and use of emergency equipment. The course may be offered as a dual-enrollment course with the local technical college or may be offered on a high school campus with a DHEC (Department of Health and Environmental Control) approved EMT-B instructor. After the student's 18th birthday and successful completion of both the practicum and the theoretical National Registry examination for EMT-B, the student will be nationally registered and state certified in South Carolina. National registry card expires in two years and state certification expires every three years.

Health Science 1

Course Code	5550
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Biology

Health Science 1 is the first of four courses offered to students interested in pursuing a career in the healthcare field. During this first course students are introduced to healthcare history,

careers, law and ethics, cultural diversity, healthcare language and math, infection control, professionalism, communication, basics of the organization of healthcare facilities, and types of healthcare insurance. Students get a good grasp of where healthcare has been, where it's going and how professionalism and personal characteristics impact their success. Students will be introduced to "**Standard Precautions**" and learn about confidentiality through HIPPA. Students will participate in a Career Project, and will hear from guest speakers in the healthcare field. Students will learn first-aid procedures and learn fire safety. The skills and knowledge that students learn in Health Science 1 serve to prepare them for future clinical experiences such as job shadowing or internships as they advance in the Health Science courses. To advance to Health Science 2, it is recommended that students should have an 80% score or higher in Health Science 1, or teacher recommendation.

Health Science 2

Course Code	5551
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Health Science 1 **or** Sports Medicine 1

Health Science 2 applies the knowledge and skills that were learned in Health Science 1 while further challenging the students to learn more about the healthcare field. Health Science 2 will continue teaching in more detail, units of study that include advanced study of infection control. They will learn about *"Transmission Based Precautions"* and become more familiar with OSHA, HIPPA, and the CDC. Students in Health Science 2 will learn how to take vital signs, record them and learn what the data means. Students will learn about the stages of life and Maslow's Hierarchy of needs. Students will learn how law and ethics are applied in the healthcare setting. This course will introduce students to basic patient care skills and medical terminology is incorporated throughout the lessons being taught. Basic Pharmacology is introduced and students will have an understanding of pharmacy math computations. Students will be certified in First Aid and CPR in this course. Students in this course should further their knowledge of healthcare careers and future goals by participating in a job shadowing experience. This course provides a foundation for further advancement in Health Science. It is recommended that students should score an 80% or higher in this course to advance to Health Science 3, or Clinical Study.

Health Science 3

Course Code	5552
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Health Science 1 **or** Sports Medicine 1 **and** CPR **and** First Aid (FA) certification

Health Science 3 focuses on the human body. Students will gain knowledge of all human body systems and how they work (Anatomy and Physiology). This course will emphasize the study of disease, prevention and treatment (Pathophysiology). Students will participate in teamwork activities for assigned projects. Medical Terminology is incorporated throughout the course. Skills learned in HS2 will be reinforced as each body system is studied.

Health Science Clinical Study (formerly Gerontology)

Course Code	5560
Recommended Maximum Enrollment	16
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Health Science 1, 2, **and** 3* (*Health Science 3 may be substituted with Science Department Anatomy & Physiology, PLTW Human Body Systems, Medical Terminology **or** AP Biology) **and** CPR **and** FA Certification

Health Science Clinical Study is designed to give students a clinical experience. This course can be a Certified Nurse Aide program or an individualized work based clinical experience for the student. Students will have classroom time to review the necessary skills and qualities needed to complete rotating internships that will require travel to worksites. (District specific student travel guidelines should be followed and worksite HIPPA training and required worksite guidelines should be adhered to.) CPR and FA certifications can be renewed during this course if needed. Students should be certified in CPR and FA before being placed at a medical facility. Schools serving as a Certified Nurse Aide program will follow the rules and regulations governed by SCDHHS. This Clinical Study program is meant to be a flexible program that works with district adapted clinical programs and certifications.

Human Body Systems

Course Code	5581
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Human Body Systems is a foundation course for the Project Lead the Way Biomedical Sciences program for high school students. Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases and often play the role of biomedical professionals to solve medical mysteries.

Introduction to Health Science (Phased out July 2015)

Medical Interventions

Course Code	5582
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Human Body Systems **and** Principles of Biomedical Science

Medical Interventions is a foundation course for the Project Lead the Way Biomedical Sciences

program for high school students. In the Medical Interventions course, students will investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. A "How-To" manual for maintaining overall health and homeostasis in the body, the course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios, students will be exposed to the wide range of interventions related to Immunology, Surgery, Genetics, Pharmacology, Medical Devices, and Diagnostics. Each family case scenario will introduce multiple types of interventions and will reinforce concepts learned in the previous two courses, as well as present new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions will be showcased across the generations of the family and will provide a look at the past, present and future of biomedical science. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important role scientific thinking and engineering design play in the development of interventions of the future.

Medical Terminology

Course Code	5540
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None

Medical terminology is designed to develop a working knowledge of the language of health professions. Students acquire word-building skills by learning prefixes, suffixes, roots, combining forms, and abbreviations. Utilizing a body systems approach, students will define, interpret, and pronounce medical terms relating to structure and function, pathology, diagnosis, clinical procedures, and pharmacology. Students will use problem-solving techniques to assist in developing an understanding of course concepts. In addition to traditional classroom instruction, Medical Terminology may be offered as a dual enrollment, virtual, online, or independent study course.

Pharmacology for Medical Careers / Pharmacy Technology

Course Code	5570
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Successful completion of one of the following: Health Science 1, Principles of Biomedical Science, EMS 1, or Sports Medicine 1 and Health Science 3 or it's substitute. (medical terminology, anatomy and physiology, human body systems.) or teacher recommendation with a 3.0 GPA or higher

This course is designed to expose students to pharmacy careers and benefit from pharmacology, math, and science standards included in this course. Teachers are encouraged to arrange student work-based learning opportunities in pharmacies for practical experience. At the end of this program a student may sit for the national exam to become a certified pharmacy technician. The American

Council for Pharmacy Education accredits the program through the Texas Pharmacy Association. The cost of the program is approximately $250 - $299 per student. Two programs offer the training - Kaduceus and PassAssured.

Practical Nursing, Phase 1

Course Code	5520
Recommended Maximum Enrollment	20
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Passing score on the NET Nurse Entrance Exam

 Practical nursing programs are approved by the South Carolina Department of Labor, Licensing and Regulation, Board of Nursing. The programs are provided support by the South Carolina Department of Education, Office of Career and Technology Education, Health Science Technology Education. These practical nursing programs are an eighteen months course of study, consisting of two nine month segments (Phase I and Phase II) that correspond with the public school calendar. Classes begin annually in August and end in May. Generally Phase I students attend classes all morning each day.

Principles of Biomedical Sciences

Course Code	5580
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Teacher recommendation

Principles of Biomedical Sciences is a foundation course for the Project Lead the Way Biomedical Sciences program for high school students. This course provides an introduction to the biomedical sciences through exciting hands-on projects and problems. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. Key biological concepts including homeostasis, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. Engineering principles including the design process, feedback loops, and the relationship of structure to function are also incorporated. This course is designed to provide an overview of all the courses in the Biomedical Sciences program and lay the scientific foundation for subsequent courses.

Sports Medicine 1

Course Code	5555
Recommended Maximum Enrollment	24
Credits	1 unit (120 hours), 2 units (240 hours)
Prerequisite	None

Sports Medicine 1 emphasizes sports medicine career exploration and the prevention of athletic injuries, including the components of exercise science, kinesiology, anatomy, principles of safety, first aid, cardiopulmonary resuscitation (CPR), and vital signs. Subject matter also

includes legal issues, members of the sports medicine team, nutrition, protective sports equipment, environmental safety issues, taping and wrapping, mechanisms of injury, and application of other sports medicine concept. Students interested in healthcare careers in athletic training, physical therapy, medicine, exercise physiology, nursing, biomechanics, nutrition, psychology, and radiology will benefit from this course. This course is recommended for students in grades 10-12. Students are encouraged to have previous course work in the biological sciences and/or health science.

Sports Medicine 2

Course Code	5556
Recommended Maximum Enrollment	24
Credits	1 unit (120 hours), 2 units (240 hours)
Prerequisite	Successful completion of Sports Medicine 1 and CPR and FA

Sports Medicine 2 emphasizes the assessment and rehabilitation of athletic injuries. Subject matter will include discussion of specific conditions and injuries that may be experienced by individuals participating in athletic activities. In addition, the use of appropriate therapeutic modalities and exercise in the care and rehabilitation of injuries will be examined. A review of the body systems will be included with this course. Advanced concepts related to the administrative aspects of the sports medicine program will also be covered in this course. Other career roles in Sports Medicine will be discussed as the athletic trainer takes the injured athlete through the pathway of recovery. This course is recommended for students in grades 10-12.

Health Science, Work-Based Credit

Course Code	5590
Recommended Maximum Enrollment	NA
Credits	1 unit (120 hours)
Prerequisite	Successful completion of two Health Sciences course**s and** CPR **and** FA certification.

Health Science work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

Sports Medicine, Work-Based Credit

Course Code	5591
Recommended Maximum Enrollment	NA
Credits	1 unit (120 hours)
Prerequisite	Successful completion of two Health Sciences courses **and** CPR **and** FA certification.

Sports Medicine work-based course is a structured, stand-alone course that is taken in a CATE

Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

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HOSPITALITY AND TOURISM

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Baking and Pastry
Course Code   5723
Recommended Maximum Enrollment   24
Credits   2 (240 hours), 3 (360 hours)
Prerequisite   Culinary 1
Baking and Pastry for secondary students is a course that provides students an opportunity to develop foundational skills needed for a seamless transition to a postsecondary program, workforce, or military. Students will develop advanced skills in safety and sanitation in addition to management and professionalism. Specialized content includes units on formulas and techniques, basic baking principles, specialized dietary baking, breads, desserts and pastries, and advanced techniques for specialty cakes, confections, piping, plate presentation, and flavor pairing. Concepts are aligned with competencies from the American Culinary Federation Education foundation assessment, ACF Retail Commercial Baking Certification. Integration of the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA) provides leadership and entrepreneurship experiences. Participation in the career & technology organization SkillsUSA provides the students with the opportunity to compete and display professional baking techniques.

Culinary Arts 1
Course Code   5720
Recommended Maximum Enrollment   20
Credits   1 (120 hours), 2 (240 hours), 3 (360hours)
Prerequisite   None
Culinary Arts prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career opportunities. Laboratory experiences simulate commercial food production and service operations. Integration of the Family and Consumer Sciences student organization, Family Career, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Culinary Arts 2
Course Code   5721
Recommended Maximum Enrollment   20
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   Culinary Arts 1
Culinary Arts 2 is an advanced level course that prepares the serious culinary student for gainful employment and/or entry into postsecondary education. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career options. Students have opportunities to develop skills in workplace settings. Integration of the Family and Consumer Sciences student organization, Family, Career, and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Hospitality Management and Operations 1

Course Code	5476
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	None

Hospitality Management and Operations 1 is designed to provide foundation information and experiences within the hospitality and tourism industry. The units in this course consist of career exploration, professionalism, safety, security, and environmental management and an in depth look into the hospitality and tourism segments. Students will have opportunities to participate in shadowing, mentoring, and other experiences that expose them to the hospitality industry. Integration of DECA and/or Family, Career, and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Hospitality Management and Operations 2

Course Code	5477
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	Hospitality Management and Operations 1

Hospitality Management and Operations 2 is designed for students who have decided to pursue a career in the hospitality industry. After completion of this course students will possess the knowledge and skills to advance rapidly in a career or in an institution of higher learning. This course includes career exploration, safety, security, and environmental management, leadership, management, marketing and sales, and an in depth study of the hospitality and tourism segments. Intensive laboratory and field experiences are integral parts of this course. Articulation or dual credit with post-secondary programs is encouraged. Integration of DECA and/or Family, Career, and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Introduction to Culinary Arts

Course Code	5722
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

Introduction to Culinary Arts provides students with an overview of interest, aptitude, and technical skills to provide foundational skills and knowledge for Culinary Arts 1 and/or the food service industry. Integration of the Family and Consumer Sciences co-curricular student organization, Family Career, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Introduction to Hospitality Management and Operations

Course Code	5478
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Introduction to Hospitality Management and Operations is designed to explore the nature, concepts and impact of the hospitality industry. This course focuses on foundational information about the industry and includes: Career exploration, employability and career development skills, guest satisfaction, safety, security and environmental practices, the history of the hospitality industry, and the hospitality and tourism segments. Integration of DECA and/or Family, Career, and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Hospitality and Tourism, Work-Based Credit

Course Code	5190
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Hospitality and Tourism work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

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HUMAN SERVICES

Barber/Master Hair Care 1, 2, 3, 4

Course Code	6158, 6159, 6160, 6161
Required Maximum Enrollment	20 students per class period
Credits	8 units/1000 hours plus 540 academic hours required by SCLLR
Prerequisite	Module 1 prerequisite for Module 2 prerequisite for Module 3 prerequisite for Module 4; Course codes assigned sequentially

The Barber/Master Hair Care Specialist Program is designed to prepare students to become Registered Barbers or Master Hair Care Specialists. Students will perform techniques and arts such as hair cutting and styling, facial treatments, trimming and shaving of facial hair, chemical hair relaxing, tinting, coloring, shampooing, and rinsing. Instruction in chemistry, bacteriology, and anatomy and physiology of the face, head, arms, and hands is incorporated by means of theory and practical application on both mannequins and live models. Also included in the course of study is barber shop/salon planning and management.

Cosmetology 1, 2, 3, 4

Course Code	6150, 6151, 6152, 6153
Required Maximum Enrollment	20 students per class period
Credits/Hours	8 units/1000 hours plus 540 academic hours required by SCLLR
Prerequisite	Module 1 prerequisite for Module 2 prerequisite for Module 3 prerequisite for Module 4; Course codes assigned sequentially

The Cosmetology Program is designed to prepare students to qualify and successfully complete all requirements for a South Carolina Cosmetology license. The student receives training following the guidelines and regulations established by the South Carolina Labor, Licensing, and Regulation Cosmetology Board. The course of study includes Sanitation and Safety, Professionalism and Salon Management, Sciences of Cosmetology, Professional Hair Care Skills, Professional Nail Care Skills, Professional Skin Care Skills, and Unassigned Specific Needs. Instruction in chemistry, bacteriology, and anatomy and physiology of the face, head, arms, and hands is incorporated by means of theory and of practical application on both mannequins and live models.

Esthetics 1, 2, 3, 4

Course Codes	6162, 6163, 6164, 6165
Required Maximum Enrollment	20 students per class period
Credits/Hours	5 units/450 hours required by SCLLR plus150 hours by SCDE or a total of 600 hours
Prerequisite	Module 1 prerequisite for Module 2 prerequisite for Module 3 prerequisite for Module 4; Course codes assigned sequentially

Esthetics is designed to train students in the theory and practical skills necessary to prepare them for immediate employment opportunities as a licensed esthetician. The course is designed to instill desirable work habits and a positive attitude toward an esthetics career. Technical skills are complimented with training in practical communication and people skills. Emphasis is placed on ethical business practices throughout the Esthetics Course.

Nail Technology 1, 2, 3, 4

Course Code	6154, 6155, 6156, 6157
Required Maximum Enrollment	20 students per class period
Credits/Hours	4 units/300 hours required by SCLLR plus 180 hours SCDE or a total of 480 hours
Prerequisite	Module 1 prerequisite for Module 2 prerequisite for Module 3 prerequisite for Module 4; Course codes assigned sequentially

The Nail Technology program is designed to prepare students to become licensed nail technologists. Nail Technology students receive training in the art and science of the care and beautification of nails. The course of study includes instruction in diseases and disorders, chemistry, biology and anatomy, and physiology of the arms, hands, and feet. Manicures, pedicures, tips, sculptures, and wraps are incorporated by means of theory and practical application on both mannequins and live models. Also included in the course of study is salon planning and management.

Human Services, Work-Based Credit

Course Codes	5790
Required Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Requirements satisfied by SCLLR statutes and regulations prior to working with the public

Human Services work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

Exploratory Family and Consumer Sciences – 6th Grade

Course Code	1858
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA

Exploratory Family and Consumer Sciences (Introduction to Personal Skills) introduces students to relationships, resources, home safety and security, childcare responsibilities, personal image, basic food preparation techniques, career, and entrepreneurship opportunities. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Introduction to Family and Consumer Sciences 1 – 7th Grade

Course Code	2857
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA

 Introduction to Family and Consumer Sciences 1 (Personal Skills 1) provides an opportunity for students to explore self-image, consumer issues, and environmental concerns, positive approaches to child development, clothing care, nutritional choices, food preparation, and skills for successful employment.

Introduction to Family and Consumer Sciences 2 – 8th Grade

Course Code	2858
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA

Introduction to Family and Consumer Sciences 2 (Personal Skills 2) focuses on the changes and challenges faced by young teens today. Topics include family relationships, goal setting, money management, home repairs, early childhood development, textile products, nutrition-related diseases and illnesses and careers.

SOUTH CAROLINA CATE COURSE CATALOG

HUMAN SERVICES/FAMILY AND CONSUMER SCIENCES SECONDARY

Family and Consumer Sciences 1

Course Code	5808
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Family and Consumer Sciences 1 is a comprehensive course designed to provide students with the core knowledge and skills needed to manage their lives. Project based instruction provides students with opportunities to utilize higher order thinking, communication, and leadership skills impacting families and communities. Concepts incorporate interpersonal relationships, career, community, and family connections, family, nutrition and wellness, consumer and family resources, fashion and apparel, food production and service, parenting, and housing into a rigorous and relevant curriculum. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Family and Consumer Sciences 2

Course Code	5809
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Family and Consumer Sciences 1

Family and Consumer Sciences 2 is a comprehensive course designed to build upon concepts learned in Family and Consumer Sciences 1. Units covered in this course are career, community, and family connections, consumer services, education and early childhood, facilities management and maintenance, family and community services, food production and services, food science, dietetics, and nutrition, hospitality, tourism, and recreation, interpersonal relationships, interiors and furnishings, and textiles. Students will explore career pathways in Family and Consumer Sciences. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Family Life Education 1

Course Code	5820
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Your body is not the only thing that needs to be healthy! What about your relationships? Learn how to make better choices by enrolling in Family Life Education 1! Family Life Education 1 helps students understand and learn to apply various concepts to gain and maintain healthy relationships throughout their lives. Topics such as applying interpersonal skills in relationships, critiquing financial decisions, and determining risk factors of healthy lifestyles are included in

the course content. Successful completion of the standards satisfies the Comprehensive Health Education Act requirements. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), standards greatly enhance the curriculum.

Family Life Education 2

Course Code	5821
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Family Life Education 1

Now that you've acquired the skills to enhance your relationships, let's further apply these skills to improve personal and family development. Family Life Education 2 stresses the role individuals must assume to improve family life. Effective personal development and the use of community resources are emphasized. Topics include but are not limited to developing healthy lifestyles, preparing for a family, managing financial resources, dealing with family crises, and developing employability skills. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Fashion, Fabric, and Design 1

Course Code	5804
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Did you know that you can make clothing out of everyday items such as gum wrappers, tires, bamboo, and aluminum foil? Learn how textiles are woven into the fabric of life. Enroll in Fashion, Fabric, and Design 1 to develop skills in the selection, purchase, design, care, and construction of textile products. The course emphasizes critical thinking skills needed for making wise consumer choices and career decisions. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (Pre-PAC) competencies and the student organization, Family Careers and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Fashion, Fabric, and Design 2

Course Code	5805
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Fashion, Fabric, and Design 1

Do you have a flair for creativity and an eye for fashion design? Why not enroll in Fashion, Fabric, and Design 2. This course is designed to advance skills in the selection, purchase, design, care, and construction of textile products. Contextual learning experiences further develop

critical thinking skills needed for success in the professional environment and merchandising. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (Pre-PAC) competencies and the student organization, Family Careers and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Financial Fitness 1

Course Code	5812
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Want to get more for your money? Want to learn to spend your money wisely? If so, this is the course you should take. Financial Fitness 1 is designed to help students develop financial management skills by evaluating marketplace alternatives, creating a personal budget, understanding consumer rights and responsibilities, understanding the impact of career choices on personal goals and making informed consumer decision. Learning experiences provide real life application concepts such as budgeting money, using credit, and avoiding scams, rip offs and identity theft. Integration of the Family and Consumer Sciences career and technical education student organization, Family Career, and Community Leaders of America greatly enhances this curriculum.

Financial Fitness 2

Course Code	5813
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Financial Fitness 1

Graduation is near and life after high school is quickly approaching! Are you ready? Take this course to help to put you in control of your future. Financial Fitness 2 is an in depth study of financial management skills. Building on skill mastered in Financial Fitness 1, students will further research and analyze savings and investment options, consumer legislation, local, state, and federal consumer protection agencies, and financial services career paths. Learning experiences incorporate strategies to improve higher order thinking skills, incorporate the use of technology, solve real world problems, and develop characteristics of a responsible consumer. Students will have opportunities to interact with professionals from business and industry. Integration of the Family and Consumer Sciences career and technical education student organization, Family Career, and Community Leaders of America greatly enhances this curriculum.

Foods and Nutrition 1

Course Code	5824
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

Students enrolled in Foods and Nutrition 1 will receive rigorous and relevant learning experiences as they study the principles of nutrition for individual and family health, fitness, and wellness. Students will gain knowledge and experiences in nutrition, food safety and sanitation, kitchen work centers, meal planning, preparation techniques, table service and etiquette, and nutrition-related careers. Critical thinking and practical problem-solving are emphasized in a co-curricular approach that incorporates principles of mathematics, science, writing, communications, and economics. The ServSafe® Foodhandlers certification provides increased marketability for students seeking employment. Foods and Nutrition 1 is a prerequisite for Foods and Nutrition 2. Inclusion of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Foods and Nutrition 2

Course Code	5825
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	Foods and Nutrition 1

Students enrolled in Foods and Nutrition 2 will experience an advanced program designed to provide a more in depth knowledge of individual and family health, fitness, and wellness. Students will gain knowledge and experiences in nutrition, safety and sanitation, consumer decisions, ethnic and multicultural meal preparation, table service and etiquette, and foods and nutrition-related careers. Critical thinking and practical problem-solving are emphasized in a co-curricular approach that incorporates principles of mathematics, science, writing, communications, and economics. The ServSafe® Foodhandlers certification provides increased marketability. Skills acquired in Foods and Nutrition 2 provides a foundation for further studies and employability in nutrition and food service. Inclusion of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Housing and Interiors 1

Course Code	5830
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

"Home is where the heart is," and the house shelters that home. Enroll in this course to begin preparations for your future dream home. Housing and Interiors 1 provides opportunities for students to evaluate the housing market; housing needs for individuals, families, and communities; and career pathways in the housing and interiors industries. Identification of the elements and principles of design is emphasized. Students will develop knowledge and skills that

enable them to plan safe and affordable homes for changing families in a world of diverse interests, cultures, and values. Projects are integrated throughout the course. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (Pre-PAC) competencies and the student organization, Family Careers and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Housing and Interiors 2

Course Code	5831
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Housing and Interiors 1

Dreams can become reality. Open the doors of your future home! Enroll in this course to get the key to your future home. Housing and Interiors 2 provides opportunities for students to apply the elements and principles of design in residential settings. Comprehensive design projects are integrated throughout the course. Interior backgrounds, furnishings, kitchen design, bath room design, laundry design, traffic patterns, home element enhancements, professional practices, and marketing skills used in the industry are explored. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (Pre-PAC) competencies and the student organization, Family Careers and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Human Development: Responsible Life Choices 1

Course Code	5834
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Do you really know yourself? Has technology taken over your life to the point where you don't like to have a face to face conversation with another human being? Learn more about yourself by enrolling in this course. Human Development: Responsible Life Choices 1 addresses development and wellness of individuals and families. Current information is provided about the physical, psychological, and emotional maturation process. Unit topics include interpersonal relationships, family life education, adolescent development, health and wellness, pregnancy and parenthood, and careers. This course includes requirements specified in the Comprehensive Health Education Act. Integration of 21st Century Skills, the Family and Consumer Sciences Pre-Professional Assessment Certification (Pre-PAC) competencies and the student organization, Family, Career and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Human Development: Responsible Life Choices 2

Course Code	5835
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Human Development: Responsible Life Choices 1

Do you want to feel better as a person, but you don't know where to start? Does the thought of becoming a parent scare you or are you intrigued by the idea? There is a special place waiting for

you in this course. Human Development: Responsible Life Choices 2 builds on skills and knowledge from the first level course. Additional unit topics include psychological health, parenthood, and an enhanced career unit. Students investigate careers in health and human services, family and human development. Extended learning opportunities including volunteer activities, service learning, and job shadowing are provided and encouraged throughout this course. Integration of 21st Century Skills, the Family and Consumer Sciences Pre-Professional Assessment Certification (Pre-PAC) competencies and the student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Parenting Education 1

Course Code	5816
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Parenting Education 1 emphasizes the importance of planning and preparing for parenthood. Learning experiences will focus on parenting practices that maximize human growth and development, the significance of health and wellness in parenting practices, issues to consider when faced with adolescent parenthood, roles, responsibilities, and rewards of parenting, management of resources across the lifespan, methods of family planning, and personal interests and career opportunities related to parenting education. Integration of concepts from the Family and Consumer Sciences co-curricular student organization – Family, Career and Community Leaders of America (FCCLA) – greatly enhances the curriculum.

Parenting Education 2

Course Code	5817
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Parenting Education 1

Parenting Education 2 provides learning experiences for students to understand the roles, responsibilities, and rewards of parenthood. Students have an opportunity to develop positive assertion skills, identify support systems for adolescent parents and their children, investigate legal and ethical responsibilities of parenthood, conduct personal analysis to determine parenting readiness skills, and demonstrate professional ethics and employability skills. Integration of concepts from the Family and Consumer Sciences co- curricular student organization – Family, Career and Community Leaders of America (FCCLA) – greatly enhances the curriculum.

Sports Nutrition 1

Course Code	5759
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Sports Nutrition 1 is designed for all students. This course examines the relationship between nutrition, physical performance, and overall wellness. Students will learn how to choose nutritious foods for healthy lifestyles and peak performance. Health and disease prevention

through nutrition, physical activity, and wellness practices are essential components of the course. Sports Nutrition 1 is a prerequisite for Sports Nutrition 2. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Sports Nutrition 2

Course Code	5760
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Sports Nutrition 1

Sports Nutrition 2 is an essential course in advancing the knowledge base of nutritional needs. This course emphasizes the metabolic process and management of food choices for optimal health and physical performance. Students are challenged to develop personal fitness and nutrition plans. Sports Nutrition 1 is a prerequisite for Sports Nutrition 2. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances the curriculum.

Family and Consumer Sciences, Work-Based Credit

Course Code	5890
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Family and Consumer Sciences work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

INFORMATION TECHNOLOGY

Advanced Animation
Course Code   5351
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Foundations of Animation
Advanced Animation teaches students how to use Autodesk Maya to model, animate, and render with a focus on establishing a working knowledge of animation tools and techniques. Emphasis is placed on career awareness, fundamentals of modeling, storyboard creation, cameras and lighting. Students will learn how 3D technology is used for film, broadcast, and games and how it is rapidly becoming the medium of choice.

Advanced Cyber Security
Course Code   5372
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Cyber Security Fundamentals and teacher
                                         recommendation
Advanced Cyber Security explores the field of information security and assurance with updated content including new innovations in technology and methodologies. It builds on existing concepts introduced in Cyber Security Fundamentals and expands into malware threats, cryptography, organizational security, and wireless technologies. This is the second of two courses that prepare the student to take the CompTIA Security+ certification exam.

Computer Forensics
Course Code   5374
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Computer Service Technology 1
Computer Forensics is focused on teaching students how to gather evidence and prevent cybercrime using computer, criminology, law, digital security, and investigative techniques. Students will learn to collect, preserve, present, and prepare computer-based evidence for the purposes of criminal law enforcement or civil litigation. Activities will define the central roles of the computer forensic practitioner involved in investigating computer crime scenes and torts involving computers. Students will be prepared to assist in the formulation and implementation of organizational computer forensics preparedness policies, to determine the necessity for forensic procedures, extend governance processes to allow for proper future forensic investigations, and be contributing members of computer forensics investigation teams.

SOUTH CAROLINA CATE COURSE CATALOG

Computer Programming 1
Course Code   5050
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Any related course, Algebra 1 (or equivalent),
                                                     and/or teacher recommendation
This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 2
Course Code   5051
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Computer Programming 1 using the same language
This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming with C++ 1
Course Code   5056
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Any computer related course, Algebra 1 (or
                                                     equivalent), **and/or** teacher recommendation
This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming with C++ 2
Course Code   5057
Recommended Maximum Enrollment   24
Credits   1 (120 hours)
Prerequisite   Computer Programming with C++ 1
This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

SOUTH CAROLINA CATE COURSE CATALOG

Computer Programming with Java 1

Course Code	5052
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Any computer related course, Algebra 1 (or equivalent), **and/or** teacher recommendation.

This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming with JAVA 2

Course Code	5053
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Computer Programming with JAVA 1

This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming with Visual Basics 1

Course Code	5054
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Any computer related course, Algebra 1 (or equivalent), **and/or** teacher recommendation.

This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming with Visual Basic 2

Course Code	5055
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Computer Programming with Visual Basic 1

This course of study is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Service Technology 1, 2, 3, 4

Course Code	5320, 5321, 5322, 5323
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Based on individual schools and school districts

The Computer Service Technology course is designed to prepare the student to perform entry-

level tasks under the supervision of an experienced technician. Students receive instruction in safety, communication skills, leadership skills, human relations and employability skills, effective work practices, and in the installation, operation, maintenance, and repair of personal computers. Associated peripheral equipment and data cabling construction and installation are also included. Laboratory activities provide instruction in installation, component replacement, operating systems, and upgrades in accordance with CompTIA A+ certification standards.

Cyber Security Fundamentals

Course Code	5370
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Networking 1

Cyber Security Fundamentals introduces the basic concepts and terminology of cyber security and information assurance. The course examines how the concept of security integrates into the importance of user involvement, security training, ethics, trust, and best practices management. The fundamental skills cover internal and external threats to network security and design, how to enforce network level security policies, how to protect an organization's information, and a broad range of other topics.

Database Programming with PL/SQL

Course Code	5326
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Database Design & Programming with SQL (5324)

This curriculum covers PL/SQL, a procedural language extension to SQL. Through an innovative project-based approach, students learn programming logic constructs such as variables, constants, conditional statements, and iterative controls. The course blends hands-on exercises, industry-type assessments, and project based learning experiences while leveraging the latest Oracle technologies. Students utilize an Oracle hosted, state-of-the-art lab environment to develop database programming skills using PL/SQL and Oracle Application Express. Students continue to improve skills including problem solving, teamwork, project management, and technical presentations that are used in a variety of industries and job roles.

Database Design and Programming with SQL

Course Code	5324
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Basic computer skills (word processing, Internet use) **and** recommended successful completion of Algebra 1

This curriculum is geared to meet the learning needs of a variety of students, from those interested in gaining broad exposure to business and technical skills to students planning on pursuing a technical education or career. This course utilizes an Oracle hosted, state-of-the-art lab environment to build database design and programming skills. Students analyze case studies

to identify data patterns and connections in order to design relational databases. Students create entity relationship diagrams (ERDs) while building collaboration and problem solving skills. Students build and modify databases using structured query language (SQL), the industry-standard database programming language.

Exploring Computer Science

Course Code	5023
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Algebra I (or equivalent), **and/or** teacher recommendation

This course of study is designed to allow students to explore a variety of computer science topics, such as Web design, human computer interactions, programming, and problem solving. Optional topics include mobile applications, robotics, and digital animation. Students will develop critical thinking, logic, and problem solving skills relevant to today's technology.

Foundations of Animation

Course Code	5350
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Imaging Editing 1**,** Digital Multimedia, **or** Web Page Design and Development 1

This course teaches students how to create and deliver interactive content across desktops and devices with a focus on establishing a working knowledge of animation tools and techniques. Foundations of Animation examines the features of Adobe's popular Flash software that is the professional standard for producing high-impact Web sites using animation, video, text, graphics and audio. Students create rich media applications that span a wide variety of digital devices, from desktops to mobile devices.

Game Design and Development

Course Code	5352
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Teacher-determined based on game development platform

Game Design and Development is a course covering major aspects of game design including character and world development, game playing, game genres, and theories and principles of game design. Students will gain hands-on experience in simple game development. Concepts and practices will be explored to help students decide if they are interested in pursuing careers in game programming.

GIS Technology 1

Course Code	5361
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Algebra I, Geometry, **and** Integrated Business Applications I **or** GIS Technology teacher approval

This course is designed to include fundamentals of Geographical Information Systems (GIS) and remote sensing concepts, project management strategies, and essential basic computer skills. Students will acquire a basic understanding of geographic terms and concepts necessary for the appropriate use of GIS, including concepts of spatial variables, scale, map projection, and map coordinate systems. Students will also be exposed to the history of GIS, how GIS fits into overall information management systems, and a variety of applications in which GIS can contribute to analysis and decision-making.

GIS Technology 2

Course Code	5362
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	GIS Technology 1

Geographical Information Systems (GIS) 2 is designed to enable/prepare students to use their knowledge of mapping and cataloging to complete numerous geospatial applications. They will learn techniques in displaying, managing, querying, symbolizing, and creating geospatial data. Students will learn the skills required to work on and/or build advanced GIS/RS projects.

Information Technology Foundations

Course Code	5270
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

The course prepares students to take the Certiport's Internet and Computing Core Certification IC^3 Certification test. This course introduces basic concepts in computer and information technology, including computer hardware, software, Internet, and network systems. Upon successful completion of this course, a student may qualify for articulation/dual credit. Individuals who currently hold or are pursuing IC^3 certification may apply for college credit through the American Council on Education (ACE) member institutions.

IT Fundamentals

Course Code	5025
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Determined by individual schools and school districts

The IT Fundamentals course is designed to prepare the student to take the CompTIA Strata Fundamentals of Information Technology Certificate of Achievement exam FC0-U41. Students

receive instruction in safety, communication skills, leadership skills, human relations and employability skills, the knowledge to identify and explain PC components, set up a basic PC workstation, conduct basic software installation, identify compatibility issues and recognize/prevent basic security risks. Also included is instruction in the areas of Green IT and preventative maintenance of computers

Java Fundamentals and Java Programming

Course Code	5058
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Algebra 2

This Oracle designed curriculum introduces fundamental programming concepts and terminology in an engaging manner through the creation of simple animations and interactive games using Object Oriented Programming environments. While mastering basic programming constructs using OPP, students will learn basic Java syntax. Using a popular, industry recognized Java IDE and the Java programming language, students will write, edit, compile, deploy, and debug Java programs. Java classes, arrays, stacks, strings, and the core APIs that are used to design object-oriented applications will be covered. The GridWorld case study is closely examined and used to enhance student knowledge of core Java concepts. The AP Java subset is also addressed. As in other Oracle courses, collaboration and problem solving are emphasized throughout the course.

Networking 1, 2, 3, 4

Course Code	5310, 5311, 5312, 5313
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Networking 1 based on individual schools and school districts; Courses taken sequentially

Networking is designed to provide students with classroom and laboratory experience in current and emerging networking technologies. Upon successful completion of these courses, students will be able to seek employment or further their education and training in the information technology field. The networking student will benefit most from the curriculum if he or she possesses a strong background in reading, math, and problem solving skills. Instruction includes networking media, topologies, network operating systems, models and protocols, codes and standards, addressing, diagnostics, routing, WAN services, network security, and leadership skills. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment. Particular emphasis is given to the use of critical thinking skills and problem-solving techniques found in math and communication programs. Networking programs may choose to articulate with postsecondary institutions for completion of some advanced level competencies**.**

SOUTH CAROLINA CATE COURSE CATALOG

SAS Programming 1

Course Code	5327
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Algebra 1 **and** at least one other programming language (Visual Basic C++ **or** Java)

This course is designed to increase student skills in business analytical software and services through the use of SAS for qualitative analysis. SAS knowledge can assist students with careers in technology, marketing, financial services, insurance, and pharmaceutical sectors. This course teaches the SAS programming language concepts and principles required for the SAS Base programming certification exam.

SAS Programming 2

Course Code	5328
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	SAS Programming 1

This course is designed to increase student skills in business analytical software and services through the use of SAS for qualitative analysis. SAS knowledge can assist students with careers in technology, marketing, financial services, insurance, and pharmaceutical sectors. This course teaches the SAS programming language concepts and principles required for the SAS Base programming certification exam.

WEB PAGE DESIGN AND DEVELOPMENT 1

Course Code	5031
Recommended Maximum Enrollment	24
Credits	1(120 hours)
Prerequisite	IBA 1 **or** Keyboarding **and** Computer Applications

Web Page Design and Development 1 is designed to provide students with the knowledge and skills needed to design Web pages. Students will develop skills in designing, implementing, and maintaining a Web site using authoring tools. Successful completion of this course will prepare the student to take industry certification test(s).

WEB PAGE DESIGN AND DEVELOPMENT 2

Course Code	5033
Recommended Maximum Enrollment	24
Credits	1(120 hours)
Prerequisite	Web Page Design and Development 1

This course is designed to provide the student with the knowledge and skills needed to design Web pages. Students will develop skills in designing, implementing, and maintaining a Web site using authoring tools.

Information Technology, Work-Based Credit
Course Code   5390
Recommended Maximum Enrollment   NA
Credits   1 (120 hours)
Prerequisite   Completion of two (2) CATE courses/units within a program

The Information Technology work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY

Emergency and Fire Management Services 1, 2
Course Code   6512, 6513
Recommended Maximum Enrollment   24
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   Level 1 prerequisite for Level 2
This program prepares individuals to do the work of fire fighters. Includes instruction in fire-fighting equipment operation and maintenance, principles of fire science and combustible substances, methods of controlling different types of fires, hazardous material handling and control, fire recuse procedures, public relations and applicable laws and regulations.

Firefighter 1, 2
Course Code   6514, 6515
Recommended Maximum Enrollment   24
Credits   Level 1 - 2 (240 hours); Level 2 -1 (120 hours)
Prerequisite   Level 1 prerequisite for Level 2
This program prepares individuals to do the work of fire fighters. Firefighter I and II courses intended to achieve NFPA certification must be conducted using curriculum that addresses the NFPA standards. Firefighter I, Firefighter II, Hazardous Materials Awareness (HMA), Hazardous Materials Operations (HMO) and Basic Auto Extrication (BAE 3330) curriculum materials can be acquired from the South Carolina Fire Academy (SCFA). For complete descriptions of SCFA's courses, see the Academy's online catalog at
www.scfa.state.sc.us/education/.
Curriculum for First Aid/CPR prerequisite training may be based on any recognized accredited course, such as those offered through the American Heart Association or American Red Cross. Hazardous Materials Awareness and Hazardous Materials Operations prerequisites must comply with NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents.*

Introduction to Law, Public Safety, Corrections and Security and Law Enforcement Services 1, 2
Course Code   6505, 6510, 6511
Recommended Maximum Enrollment   24
Credits   1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite   Level 1 prerequisite for Level 2
This program prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operations and maintenance, report preparation and other routine law enforcement responsibilities.

Law, Public Safety, Corrections and Security, Work-Based Credit

Course Code	6590
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Law, Public Safety, Corrections and Security work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

MANUFACTURING

Electronics Technology 1, 2, 3, 4

Course Code	6133, 6134, 6135, 6136
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Core Electronics is a program that prepares individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances and the use of testing equipment.

Introduction to Manufacturing Technology

Course Code	6045
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Introduction to Manufacturing Technology is an entry-level course that provides students an introduction to manufacturing industries and may be used as a prerequisite for any of the manufacturing career majors: Electronics Technology, Machine Technology, Mechatronics Integrated Technologies, Metal Fabrication, and Welding. All standards except those in the careers unit come from the Manufacturing Skill Standards Council's (MSSC) "worker" standards in two* of its identified four critical work functions of production: Safety*, Quality Practices and Measurement*, Manufacturing Processes and Production, and Maintenance Awareness. Worker standards are the basic knowledge and skills required by a mid-level production technician to perform the work. www.msscusa.org

Machine Technology 1, 2, 3, 4

Course Codes	6230, 6231, 6232, 6233
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Machine Technology prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair, or design activities, or as an independent business.

Mechatronics Integrated Technologies 1, 2, 3, 4

Course Codes	6210, 6211, 6212, 6213
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Mechatronics is a new interdisciplinary field involving mechanical, instrumentation, electronics, robotics/automation, computer components, and control systems. The program prepares students who like to work with their hands as well as their minds. Mechatronics is a dynamic field that changes daily with the rapid improvements in technology and computer systems. Systems are networked to meet the demands of automated manufacturing processes, and technicians are trained to meet necessary entry-level industrial skills and entry into a postsecondary program at a technical college. Dual credit may be available through some SC technical colleges. Mechatronics 1 – Industrial Safety, Mechatronics 2 – Hand and Power Tool Operations, Mechatronics 3 – Hydraulics and Pneumatics, Mechatronics 4 – AC/DC Circuits

Metal Fabrication 1, 2, 3, 4

Course Codes	6260, 6261, 6262, 6263
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Metal Fabrication prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

Welding Technology 1, 2, 3, 4

Course Codes	6340, 6341, 6342, 6343
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

Welding Technology prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. Includes instruction in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding metallurgy, welding processes and heat treating, structural design, safety, and applicable codes and standards.

Manufacturing, Work-Based Credit

Course Codes	6490
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses within a program

Manufacturing work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

MARKETING

Advertising
Course Code	5470
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Marketing

This course is designed to introduce the concepts of advertising, planning strategies, communication skills, and professional development. Course content includes budget development, media selection, design, and the preparation of ads for various media.

Digital Media Marketing
Course Code	5422
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Computer Applications **or** Integrated Business Application 1

This course is an overview of techniques in digital marketing media, including non-linear editing introducing students to the primary feature set and basic interface of industry standard editing software. Students will plan and execute a storyboard for producing their final product, to include podcasts, DVDs, video blogs, and webcasts. Students learn to demonstrate basic digital video camera technique, digital sound, and lighting. In addition, students will perform basic editing functions while familiarizing themselves with the software's user interface. Topics include basic setup, adjusting and customizing preferences and settings, capturing video and audio, various editing and trimming techniques, audio editing and audio creation, finishing and final output.

Fashion Merchandising
Course Code	5410
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This course is designed to explore the concepts and practices of the fashion business to include an overview of the fashion industry, the nature of fashion, and career development. In addition, the functions of product technology, selling, advertising, visual merchandising, fashion buying, merchandising, and management will be analyzed.

Global Business

Course Code	5440
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This is an online course for high school students designed to help them learn about and prepare for an increasingly global future; to meet and exceed their state educational standards; and to enjoy a wide range of project-based assignments and activities that bring world trade, entrepreneurialism and global markets to life.

Marketing

Course Code	5421
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This course introduces marketing concepts and examines the economic, marketing, and business fundamentals, in addition to the marketing functions of selling, promotion, and distribution. The standards listed are core standards and those standards reflecting the needs of the local business community. This is the basic course in the marketing curriculum and should be taken before the specialized courses.

Marketing Management

Course Code	5431
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Marketing

This course continues the analysis of the marketing functions by examining human resource foundations, marketing and business fundamentals, distribution, promotion, and selling as applied in merchandising.

Marketing Research

Course Code	5423
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Marketing

By conducting research, students in Marketing Research will explore trends, needs, and challenges within a given target market. They will use various research methods and technology to analyze findings and present recommendations. Through the exploration of these methods, students will discover different techniques for the implementation of successful marketing research strategies.

Merchandising

Course Code	5430
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Marketing

This program prepares individuals to function as professional buyers of resale products and product lines for stores, chains, and other retail enterprises. Include instruction in product evaluation, merchandising, applicable aspects of brand and consumer research, principles of purchasing, and negotiation skills.

Professional Sales

Course Code	5471
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Marketing

Students in this course will study the concepts needed to respond to customer wants and needs through planned personalized communication that influences purchase decisions, maintains customer relationships, ensures satisfaction, and enhances future business opportunities. Subject matter will include selling strategies, psychological and social factors influencing buying and selling, career opportunities, and technological integration in selling.

Sports and Entertainment Management

Course Code	5426
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Sports and Entertainment Marketing 1 **or** Marketing

In this course, students will apply concepts learned in Sports and Entertainment Marketing and study key concepts in management and managerial principles as related to the sports and entertainment industry. Topics that will be addressed include leadership, finance, product management, people management, information management, legal and ethical issues, customer relations, sales management, change management, and career development. Students who are considering careers in the following areas will benefit from this course: sports and entertainment law, box office management and sales, group sales, public sales, marketing, operations, development, sports programming, and other various managerial and leadership positions in the sports and entertainment industry.

Sports and Entertainment Marketing 1

Course Code	5425
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This program is for students who wish to pursue careers in the various areas of the sports and entertainment industry. This includes careers in box office management and sales, group sales, public sales, marketing, operations, development and sports programming.

Marketing, Work-Based Credit

Course Code	5091
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Marketing work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

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SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS
MIDDLE SCHOOL

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Gateway to Technology – 6th, 7th, and 8th Grades

Course Code	2841
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA

Gateway To Technology (GTT) program features a project-based curriculum designed to challenge and engage the natural curiosity and imagination of middle school students. They envision, design and test their ideas with the same advanced modeling software used by companies like Lockheed Martin, Intel and Sprint. The knowledge that students gain and the skills they build from the GTT program creates a strong foundation for further STEM learning in high school and beyond.

Industrial Technology Education - 6th, 7th, and 8th Grades

Course Code	2840
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA

Industrial Technology Education provides basic technological knowledge and skills to become technology literate citizens. Standards are organized into five categories: The Nature of Technology, Technology and Society, Design, Abilities for a Technological World, and the Designed World and are presented in grade bands.

SOUTH CAROLINA CATE COURSE CATALOG

Food Science and Dietetics 1

Course Code	**5757**
Recommended Maximum Enrollment	20
Credits	1 (120 hours)
Prerequisite	None

Discover the science behind your favorite foods! How is root beer made? Are all additives bad? Will you get sick if you eat mold? These questions and more will be answered. Learn biology, chemistry, and physics as you investigate principles of food processing and food science. Topics to be covered include food safety and regulations, processing and preservation, product development, and nutritional content of various foods. The course places emphasis on hands-on lab activities and discussion. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this course.

Food Science and Dietetics 2

Course Code	**5758**
Recommended Maximum Enrollment	20
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	Food Science and Dietetics 1

Discover different ways to preserve food. Create an original food product, technique, or process to be used in the food industry. Learn biology, chemistry, and physics as you continue to investigate principles of food processing and food science. Topics to be covered include food safety and regulations, processing and preservation, product development, and nutritional content of various foods. The course places emphasis on hands-on lab activities and discussion. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this course.

Clean Energy Applications (Advanced Career)

Course Code	6381
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Clean Energy Systems

This SREB/OCTE developed course builds on the foundation of the previous course and introduces nuclear power, steam generation, fuel cells, geothermal power, water power, AC/DC power generation, heat transfer, and the laws of thermodynamics. In addition, students now use chemical and thermal energy principals to create, store, and use energy efficiently to power a variety of hands-on design projects to demonstrate course principles using advanced technology hardware and software.

SOUTH CAROLINA CATE COURSE CATALOG

Clean Energy Systems (ADVANCED CAREER)

Course Code	6380
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This SREB/OCTE developed course exposes students to three sources of renewable energy; wind, solar, and biofuels. Working with solar, thermal, chemical, and mechanical sources of clean energy teaches students how to apply physics, geography, chemistry, biology, geometry, algebra, and engineering fundamentals. Students learn the most efficient and appropriate use of energy production as they explore the relevant relationships among work, power, and energy. Students will engage in a wide variety of hands-on projects and lab activities that both test their knowledge and illustrate the interrelationships between the various forms of clean energy.

Industrial Technology Education (Exploratory) 1, 2

Course Code	6040, 6041
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Industrial Technology Education provides the essential core of technological knowledge and skills to become technology literate citizens. Standards are organized into five categories: The Nature of Technology, Technology and Society, Design, Abilities for a Technological World, and the Designed World and are presented in grade bands.

Introduction to Engineering (STEM Academy)

Course Code	6370
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

This STEM course is a basic introduction to engineering for all students. Students who complete this course learn the concepts necessary to develop their ideas into solutions that will improve their lives. Exciting hands-on learning activities like data comparison of heart rates, rating consumer products, descriptive testing, and 3 D solid modeling utilize concepts from math, science, history and English within a STEM framework.

3D Solid Modeling (STEM Academy)

Course Code	6371
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (STEM Academy)

Learning 3D design is an interactive process. Students learn best when they can explore the practical applications of the concepts that they learn. This STEM course has many activities and

exercises that enable students to put design concepts into practice. Students create their ideas such as artificial heart components, extreme sports equipment, hip replacement parts, robotic arm components, musical instruments and their parts as well as many others. Ideas become reality in this course.

PLTW-Aerospace Engineering (AE)

Course Code	6056
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

This PLTW course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software and explore robot systems through projects such as remotely operated vehicles.

PLTW-Biotechnical Engineering (BE)

Course Code	6057
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

This PLTW course consists of hands-on projects engage students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, tissue engineering, biomedical devices, forensics and bioethics.

PLTW-Civil Engineering and Architecture (CEA)

Course Code	6058
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

Students learn important aspects of building and site design and development, applying math, science, and standard engineering practices to design both residential and commercial projects. They document designs using 3D architecture design software. Some students have seen these designs come to life through partnerships with local housing organizations.

SOUTH CAROLINA CATE COURSE CATALOG

PLTW-Computer Integrated Manufacturing (CIM)

Course Code	6053
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing while teaching students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

PLTW-Computer Software Engineering (CSC)

Course Code	6096
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

Computer Science Software Engineering is project and problem-based, with students working in teams to develop computational thinking and solve open-ended, practical problems that occur in the real world. The course aligns with the College Board's new CS framework, as well as ABET and National Education Standards. The course is not a programming language course; it aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity.

PLTW-Digital Electronics (DE)

Course Code	6052
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

From smart phones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry including logic gates, integrated circuits, and programmable logic devices.

PLTW-Engineering Design and Development (EDD)

Course Code	6054
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) **or** Teacher Recommendation

The knowledge and skills student acquire on the "Pathway To Engineering" come together in

EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards. Completing EDD prepares students to be ready to take on any post-secondary program or career.

PLTW-Introduction to Engineering Design (IED)

Course Code	6051
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Students dig deep into the engineering design process, applying math, science and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software and document their work in an engineering notebook.

PLTW-Principles of Engineering (POE)

Course Code	6050
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering Design

Through problems that engage and challenge students, they explore a broad range of engineering topics including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

PLTW-Introduction to Pre-Engineering technology

Course Code	6095
Recommended Maximum Enrollment	NA
Credits	NA
Prerequisite	NA

This course has been phased out.

Pre-Engineering/Engineering and Industrial Technology Education, Work-Based Credit

Course Code	6090
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Science, Technology, Engineering, and Mathematics work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.

SOUTH CAROLINA CATE COURSE CATALOG

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TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

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Automotive Collision Repair Technology 1, 2, 3, 4

Course Codes	6020, 6021, 6022, 6023
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The Automotive Collision Repair Technology program is designed to prepare students to repair automobiles and light commercial vehicles under the supervision of an experienced automotive collision repair technician. Automotive Collision Repair Technology students receive instruction in frame alignment, surface finishing, and shop management. Upon successful completion of the program standards, the student will be prepared for postsecondary education and entry-level automotive collision repair-related careers. Program standards are based on NATEF-ASE, Vehicle Manufacturers, and I-CAR industry standards.

Automotive Technology 1, 2, 3, 4

Course Codes	6030, 6031, 6032, 6033
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Transportation, Distribution and Logistics career cluster. The Automotive Technology program provides technical skill proficiency and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills and occupation-specific skills, and knowledge of all aspects of the Transportation, Distribution and Logistics career cluster.

Diesel Engine Technology 1, 2, 3, 4

Course Codes	6310, 6311, 6312, 6313
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The Diesel Technology program provides a broad foundation in the diesel repair field by preparing students for entry level positions in the field of heavy duty diesel vehicle repair. Students gain skills in engine repair, fuel supply and management, suspension and brakes, hydraulic systems operation, and lighting and instrumentation. Students entering this program should exhibit mechanical aptitude, the ability to read and follow instructions as outlined in service repair manuals, and enjoy precision work and problem solving.

Introduction to Transportation, Distribution, and Logistics

Course Codes	6015
Recommended Maximum Enrollment	24
Credits	1 (120 hours)
Prerequisite	None

Introduction to Transportation, Distribution, and Logistics is a foundation course that covers a broad industry sector responsible for managing the flow of goods, information, and people between a point of origin and a point of consumption in order to meet the requirements of consumers. Major sub-sectors within the industry include air, rail, water, and truck transportation, urban transit and ground passenger transportation, warehousing and storage, and motor vehicle repair. Logistics involve the integration of these sub sectors, including information, transportation, and inventory, warehousing, material-handling, and packaging.

Power Equipment Technology 1, 2, 3, 4

Course Codes	6300, 6301, 6302, 6303
Recommended Maximum Enrollment	24
Credits	1 (120 hours), 2 (240 hours), 3 (360 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially

The Small Engine Technology program is designed to prepare students to perform entry-level maintenance and repair tasks under the supervision of an experienced technician. Students receive training on small internal combustion engines used on portable equipment such as lawn mowers, chain saws, rotary tillers, motorcycles, pumps, compressors, and small boats. The training includes locating and solving problems, using specialized test equipment, overhauling the basic engine, and repairing or replacing engine systems.

Transportation, Distribution and Logistics, Work-Based Credit

Course Code	6790
Recommended Maximum Enrollment	NA
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CATE courses/units within a program

Transportation, Distribution and Logistics work-based course is a structured, stand-alone course that is taken in a CATE Classification of Instructional Programs (CIP)-coded program. Each work-based learning (credit bearing) course has an assigned CATE course code. The guidelines listed in the CATE Work-Based Learning Implementation Guide must be followed in order to award the Carnegie unit of credit upon successful completion of the course.