

## CATE Code Descriptions

- ❖ **Course ID:** The eight characters used to identify each instructional activity.

The first four characters are the digits that make up the course code. The fifth and sixth characters are digits that are district defined. One of three different characters will occupy the seventh position: either the alpha character that represents the academic tag for credit-bearing courses, or the numeric 0, or the digit that represents the special education activity instructional approach. One of three different characters will occupy the eighth position: either the alpha character that represents the unit tag for credit-bearing courses or the numeric 0, or the digit that represents a specific instruction area. Use only **uppercase** characters for academic and unit tags.

- ❖ **Course Code:** The first four digits of the course ID.

Valid CATE courses and codes can be found beginning on page 53 of this section. Codes for the state-approved courses are used for the Perkins accountability indicators and report card measures and indicators. Perkins funds may be used to improve state-approved CATE courses with the exception of work-based credit courses. Courses with "LBA" (local board approved) in the title are not valid CATE course codes for state and federal accountability and funding purposes.

- ❖ **Innovative Courses:** Unique courses representing emerging areas of study that fall outside of the Office of Career and Technology Education's course offerings. For an innovative course, State Board Approval (SBA) is required before the course can be offered using a CATE course code. An innovative application must be completed and submitted for OCTE approval by **January 31<sup>st</sup>** of each year. Once the innovative application has been approved by OCTE staff, notification will be sent to the school district with the course code that is to be assigned in the student information system.

The CATE Innovative Application and instructions can be found at:  
<http://ed.sc.gov/agency/programs-services/152/>

- ❖ **Work-Based Learning Courses:** Work-Based Learning Courses (credit bearing) are structured, stand-alone courses that are taken in addition to other CATE courses that make up a CATE CIP-coded program. Each Work-Based Learning Course (credit bearing) has an assigned CATE course code, and guidelines must be followed in order to award the Carnegie unit of credit upon successful completion of the course. Only one unit of work-based learning credit may be awarded toward CATE completer status. Reference the Work-Based Learning document located at: <http://ed.sc.gov/agency/ac/Career-and-Technology-Education/Program-Support/>.
- ❖ **CATE Program:** A state-recognized CATE program must be composed of an approved sequence of career and technology education courses leading to a career goal and must include a minimum of 4 Carnegie units of credit. If the units of credit required to complete a specified CATE program *exceed* the minimum of 4 units, students must earn all of the required units of credit to be considered CATE program completers
- ❖ **CIP Code:** The six-digit CIP (Classification of Instructional Programs) codes designate the specific CATE programs and are used for federal reporting and assessing the federal Perkins indicators. Every student identified as a CATE concentrator must be assigned a CIP code approved by the OCTE. **CIP codes are *not* the same as course codes.**
- ❖ **Custom/Cross-Cluster CIP Code:** The intent for requesting Custom/Cross-Cluster Program Approval is for a program which is designed to specifically match a student's career goals if those goals do not fall within any of the current CATE approved programs. Such customizing may even involve allowing a student to select related courses from

different CATE cluster areas. Several criteria to remember when making a request for a CATE Custom/Cross-Cluster CIP code:

- Local businesses, advisory committees, and school district/career center personnel should be consulted when a customized program for a student is being determined.
- Each course in a customized program must include contextual learning.
- Student has earned or will earn the third unit of the designed program before submitting request.

**Custom Program** – comprised of CATE courses from programs within the same cluster

**Cross-Cluster Program** – comprised of CATE courses across two or more cluster areas.

**NOTE:** For school year 2015-16, prior approval from CATE staff is needed in order to use a Custom or Cross-Cluster CIP code. Deadline for request(s) is **March 2, 2016**. The approval form and instructions for completing and submitting the form are located at: <http://ed.sc.gov/agency/programs-services/152/>.

The following pages within this appendix are listings of the required and/or approved CATE courses for each state-recognized CATE program by cluster. Questions related to program and course content or the assignment of CIP codes may be directed to the following individuals:

<b>Career Cluster</b>	<b>Contact</b>
<ul style="list-style-type: none"> <li>▶ <b>Agriculture, Food and Natural Resources</b></li> </ul>	<p><b>William E. Keels</b> 803-896-8873 <a href="mailto:wkeels@clermson.edu">wkeels@clermson.edu</a></p>
<ul style="list-style-type: none"> <li>▶ <b>Architecture and Construction</b></li> <li>▶ <b>Law, Public Safety, Corrections and Security</b></li> <li>▶ <b>Manufacturing</b></li> </ul>	<p><b>Steven Watterson</b> 803-734-8267 <a href="mailto:swatterson@ed.sc.gov">swatterson@ed.sc.gov</a></p>
<ul style="list-style-type: none"> <li>▶ <b>Arts, Audio-Video Technology and Communications</b></li> <li>▶ <b>Science, Technology, Engineering and Mathematics</b></li> <li>▶ <b>Transportation, Distribution and Logistics</b></li> </ul>	<p><b>B. T. Martin</b> 803-734-3398 <a href="mailto:btmartin@ed.sc.gov">btmartin@ed.sc.gov</a></p>
<ul style="list-style-type: none"> <li>▶ <b>Arts, Audio-Video Technology and Communications</b></li> <li>▶ <b>Education and Training</b></li> <li>▶ <b>Hospitality and Tourism</b></li> <li>▶ <b>Human Services/Family and Consumer Sciences</b></li> <li>▶ <b>Science, Technology, Engineering and Mathematics</b></li> </ul>	<p><b>Eleanor Glover</b> 803-734-3826 <a href="mailto:eglover@ed.sc.gov">eglover@ed.sc.gov</a></p>
<ul style="list-style-type: none"> <li>▶ <b>Business Management and Administration</b></li> <li>▶ <b>Finance</b></li> <li>▶ <b>Information Technology</b></li> <li>▶ <b>Marketing</b></li> </ul>	<p><b>Tony Dillon</b> 803-734-7168 <a href="mailto:tdillon@ed.sc.gov">tdillon@ed.sc.gov</a></p>
<ul style="list-style-type: none"> <li>▶ <b>Health Science</b></li> </ul>	<p><b>Angel Clark</b> 803-734-0372 <a href="mailto:aclark@ed.sc.gov">aclark@ed.sc.gov</a></p>
<ul style="list-style-type: none"> <li>▶ <b>CATE Program Team Lead</b></li> </ul>	<p><b>Marty Martin</b> 803-734-8564 <a href="mailto:mamartin@ed.sc.gov">mamartin@ed.sc.gov</a></p>

## Agriculture, Food, and Natural Resources

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

Course Code	Course Title
5600	Agribusiness and Marketing
5691	Agricultural and Biosystems Science
5614	Agricultural Crop Production and Management
5660	Agricultural Mechanics and Technology
5604	Agricultural Mechanics and Technology for the Workplace 1
5605	Agricultural Mechanics and Technology for the Workplace 2
5610	Agricultural Power Mechanics
5624	Agricultural Science and Technology
5620	Agricultural Science and Technology for the Workplace
5611	Agricultural Structural Mechanics
5603	Animal Science
5608	Animal Science for the Workplace 1
5609	Animal Science for the Workplace 2
5663	Aquaculture
5692	Biosystems Mechanics and Engineering
5695	Biosystems Technology 3
5696	Biosystems Technology 4
5693	Biosystems Technology Career Development 1
5694	Biosystems Technology Career Development 2
5646	Cattle Production
5626	Environmental and Natural Resources Management
5628	Environmental and Natural Resources Management for the Workplace 1
5629	Environmental and Natural Resources Management for the Workplace 2
5679	Equine Science
5621	Equipment Operation and Maintenance
5647	Farm Animal Production
5634	Floriculture
5657	Food Processing
5642	Forestry
5667	Golf Course Technology
5652	Horticulture for the Workplace 1
5653	Horticulture for the Workplace 2
5650	Introduction to Horticulture
5613	Introduction to Veterinary Science
5670	Landscape Technology
5672	Nursery, Greenhouse, and Garden Center Technology
5602	Outdoor Recreation
5612	Small Animal Care
5627	Soil and Water Conservation
5630	Soils and Soiless Research
5655	Sports Turf Management
5654	Turf and Lawn Management
5674	Wildlife Management
5690	Agriculture, Food and Natural Resources, work-based credit
5699	Agriculture, Food and Natural Resources, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
010205	Agricultural Mechanics and Technology
140301	Biosystems Engineering Technology
030101	Environmental and Natural Resources Management
010601	Horticulture
011101	Plant and Animal Systems

Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.

**Agricultural Mechanics and Technology ..... 010205**

- Agribusiness and Marketing
- Agricultural and Biosystems Science
- Agricultural Mechanics and Technology
- Agricultural Mechanics and Technology for the Workplace 1
- Agricultural Mechanics and Technology for the Workplace 2
- Agricultural Power Mechanics
- Agricultural Science and Technology
- Agricultural Science and Technology for the Workplace
- Agricultural Structural Mechanics
- Biosystems Mechanics and Engineering
- Equipment Operation and Maintenance
- Soil and Water Conservation
- Agriculture, Food and Natural Resources, work-based credit

**Biosystems Engineering Technology ..... 140301**

- Agricultural and Biosystems Science
- Biosystems Technology 3
- Biosystems Technology 4
- Biosystems Technology Career Development 1
- Biosystems Technology Career Development 2
- Biosystems Mechanics and Engineering
- Agriculture, Food and Natural Resources, work-based credit

**Environmental and Natural Resources Management ..... 030101**

- Agricultural and Biosystems Science
- Agricultural Mechanics and Technology
- Agricultural Science and Technology
- Agricultural Science and Technology for the Workplace
- Aquaculture
- Biosystems Mechanics and Engineering
- Environmental and Natural Resources Management
- Environmental and Natural Resources Management for the Workplace 1
- Environmental and Natural Resources Management for the Workplace 2
- Equipment Operation and Maintenance
- Forestry
- Outdoor Recreation
- Soil and Water Conservation
- Soils and Soiless Research
- Wildlife Management
- Agriculture, Food and Natural Resources, work-based credit

**Horticulture..... 010601**

Agribusiness and Marketing  
Agricultural and Biosystems Science  
Agricultural Mechanics and Technology  
Agricultural Science and Technology  
Agricultural Science and Technology for the Workplace  
Biosystems Mechanics and Engineering  
Equipment Operation and Maintenance  
Floriculture  
Golf Course Technology  
Horticulture for the Workplace 1  
Horticulture for the Workplace 2  
Introduction to Horticulture  
Landscape Technology  
Nursery, Greenhouse, and Garden Center Technology  
Soils and Soilless Research  
Sports Turf Management  
Turf and Lawn Management  
Agriculture, Food and Natural Resources, work-based credit

**Plant and Animal Systems..... 011101**

Agribusiness and Marketing  
Agricultural and Biosystems Science  
Agricultural Crop Production and Management  
Agricultural Mechanics and Technology  
Agricultural Science and Technology  
Agricultural Science and Technology for the Workplace  
Animal Science  
Animal Science for the Workplace 1  
Animal Science for the Workplace 2  
Aquaculture  
Biosystems Mechanics and Engineering  
Cattle Production  
Equine Science  
Equipment Operation and Maintenance  
Farm Animal Production  
Food Processing  
Introduction to Veterinary Science  
Small Animal Care  
Soil and Water Conservation  
Soils and Soilless Research  
Agriculture, Food and Natural Resources, work-based credit

## Architecture and Construction

Careers in designing, planning, managing, building, and maintaining the built environment.

Course Code	Course Title
6060	Building Construction Cluster 1
6061	Building Construction Cluster 2
6062	Building Construction Cluster 3
6063	Building Construction Cluster 4
6080	Cabinetmaking 1
6081	Cabinetmaking 2
6082	Cabinetmaking 3
6083	Cabinetmaking 4
6091	Carpentry 1
6092	Carpentry 2
6093	Carpentry 3
6094	Carpentry 4
6287	Electricity 1
6288	Electricity 2
6289	Electricity 3
6290	Electricity 4
5330	Home Systems Technology
6003	HVAC Technology 1
6004	HVAC Technology 2
6005	HVAC Technology 3
6006	HVAC Technology 4
6001	Introduction to Construction
6250	Masonry 1
6251	Masonry 2
6252	Masonry 3
6253	Masonry 4
6280	Plumbing 1
6281	Plumbing 2
6282	Plumbing 3
6283	Plumbing 4
6690	Architecture and Construction, work-based credit
6299	Architecture and Construction, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
460000	Building Construction Cluster
480703	Cabinetmaking
460201	Carpentry
460301	Electricity
470201	HVAC Technology
460101	Masonry
460503	Plumbing

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### **Building Construction Cluster..... 460000**

Introduction to Construction  
 Building Construction Cluster 1  
 Building Construction Cluster 2  
 Building Construction Cluster 3  
 Building Construction Cluster 4  
 Architecture and Construction, work-based credit

**Cabinetmaking ..... 480703**

Introduction to Construction  
Cabinetmaking 1  
Cabinetmaking 2  
Cabinetmaking 3  
Cabinetmaking 4  
Architecture and Construction, work-based credit

**Carpentry ..... 460201**

Introduction to Construction  
Carpentry 1  
Carpentry 2  
Carpentry 3  
Carpentry 4  
Architecture and Construction, work-based credit

**Electricity ..... 460301**

Introduction to Construction  
Electricity 1  
Electricity 2  
Electricity 3  
Electricity 4  
Architecture and Construction, work-based credit

**HVAC Technology ..... 470201**

Introduction to Construction  
HVAC Technology 1  
HVAC Technology 2  
HVAC Technology 3  
HVAC Technology 4  
Architecture and Construction, work-based credit

**Masonry ..... 460101**

Introduction to Construction  
Masonry 1  
Masonry 2  
Masonry 3  
Masonry 4  
Architecture and Construction, work-based credit

**Plumbing ..... 460503**

Introduction to Construction  
Plumbing 1  
Plumbing 2  
Plumbing 3  
Plumbing 4  
Architecture and Construction, work-based credit

## Arts, Audio-Video Technology, and Communications

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

Course Code	Course Title
6170	Architectural Design 1
6171	Architectural Design 2
6120	Digital Art and Design 1
6121	Digital Art and Design 2
6122	Digital Art and Design 3
6123	Digital Art and Design 4
5710	Fashion Design and Apparel Construction 1
5711	Fashion Design and Apparel Construction 2
6200	Graphic Communications 1
6201	Graphic Communications 2
6202	Graphic Communications 3
6203	Graphic Communications 4
5455	Interior Design 1
5456	Interior Design 2
5205	Introduction to Graphic Communications
6172	Mechanical Design 1
6173	Mechanical Design 2
6124	Media Technology 1
6125	Media Technology 2
5290	Arts, Audio-Video Technology and Communications, work-based credit
5299	Arts, Audio-Video Technology and Communications, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
151301	Architecture/Mechanical Design
500402	Digital Art and Design
500407	Fashion Design and Apparel Construction
100301	Graphic Communications
500408	Interior Design
100299	Media Technology

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### **Architecture/Mechanical Design ..... 151301**

- Architectural Design 1
- Architectural Design 2
- Mechanical Design 1
- Mechanical Design 2
- Arts, Audio-Video Technology and Communications, work-based credit

### **Digital Art and Design ..... 500402**

- Digital Art and Design 1
- Digital Art and Design 2
- Digital Art and Design 3
- Digital Art and Design 4
- Arts, Audio-Video Technology and Communications, work-based credit



**Fashion Design and Apparel Construction ..... 500407**

**Required Courses:**

Fashion Design and Apparel Construction 1  
 Fashion Design and Apparel Construction 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Entrepreneurship	Financial Fitness 2
Family and Consumer Sciences 1	Integrated Business Applications 1
Family and Consumer Sciences 2	Marketing Management
Fashion, Fabric, and Design 1	Mechanical Design 1
Fashion, Fabric, and Design 2	Web Page Design and Development 1
Fashion Merchandising	Arts, Audio-Video Technology and Communications, work-based credit
Financial Fitness 1	

**Graphic Communications..... 100301**

Graphic Communications 1  
 Graphic Communications 2  
 Graphic Communications 3  
 Graphic Communications 4  
 Arts, Audio-Video Technology and Communications, work-based credit

**Interior Design..... 500408**

**Required Courses:**

Interior Design 1  
 Interior Design 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Entrepreneurship	Integrated Business Applications 1
Family and Consumer Sciences 1	Marketing Management
Family and Consumer Sciences 2	Mechanical Design 1
Housing and Interiors 1	Web Page Design and Development 1
Housing and Interiors 2	Arts, Audio-Video Technology and Communications, work-based credit

**Media Technology ..... 100299**

Media Technology 1  
 Media Technology 2  
 Arts, Audio-Video Technology and Communications, work-based credit

## Business Management and Administration

Business Management and Administration careers encompass planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.

<b>Course Code</b>	<b>Course Title</b>
5122	Administrative Support Technology
5044	Business Law
5092	Business Principles and Management
5008	Computer Applications (Refer to Page 86 for More Info)
5176	Digital Desktop Publishing
5180	Digital Input Technologies
5181	Digital Literacy (Refer to Page 86 for More Info)
5030	Digital Multimedia
5400	Entrepreneurship
5041	Essential Communications
5090	Fundamentals of Business, Marketing and Finance
5480	Fundamentals of Project Management
5007	Google Applications
5011	Google Basics (Refer to Page 86 for More Info)
5093	Human Resource Management
5340	Image Editing 1
5341	Image Editing 2
5020	Integrated Business Applications 1
5021	Integrated Business Applications 2
5032	International Business and Marketing
5100	Keyboarding (Refer to Page 86 for More Info)
5482	Logistics and Business Processes
5010	Multimedia Basics (Refer to Page 86 for More Info)
5131	Personal Finance
5178	Professional and Leadership Development
5034	Social Media in Business
5150	Virtual Enterprise 1
5151	Virtual Enterprise 2
5152	Virtual Enterprise 3
5153	Virtual Enterprise 4
5490	Business Management and Administration, work-based credit
5499	Business Management and Administration, LBA
<b>CIP Code</b>	<b>Program Title</b> (See below for the approved courses for each CATE program)
520401	Administrative Services
521206	Business Information Management
520201	General Management
521001	Human Resources Management
520204	Operations Management

Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum of 4 units of credit*.

**Administrative Services..... 520401**

**Required Courses:**

Administrative Support Technology  
 Integrated Business Applications 1

***Additional approved courses if needed to meet state-recognized program requirements:***

Business Principles and Management	Image Editing 2
Digital Desktop Publishing	Information Technology Foundations
Digital Input Technologies	Integrated Business Applications 2
Entrepreneurship	Professional and Leadership Development
Essential Communications	Social Media in Business
Financial Math	Web Page Design and Development 1
Fundamentals of Business, Marketing, and Finance	Web Page Design and Development 2
Google Applications	Business Management and Administration, work-based credit
Image Editing 1	

**Business Information Management..... 521206**

**Required Courses:**

Digital Desktop Publishing  
 Image Editing 1

***Additional approved courses if needed to meet state-recognized program requirements:***

Advertising	Google Applications
Business Principles and Management	Image Editing 2
Digital Input Technologies	Information Technology Foundations
Digital Multimedia	Integrated Business Applications 1
Entrepreneurship	Integrated Business Applications 2
Essential Communications	IT Fundamentals
Exploring Computer Science	Professional and Leadership Development
Financial Math	Social Media in Business
Foundations of Animation	Web Page Design and Development 1
Fundamentals of Business, Marketing, and Finance	Web Page Design and Development 2
Fundamentals of Project Management	Business Management and Administration, work-based credit

**General Management ..... 520201**

**Required Courses:**

Accounting 1  
Entrepreneurship

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 2	Integrated Business Applications 2
Business Finance	International Business and Marketing
Business Law	Logistics and Business Processes
Business Principles and Management	Marketing
Essential Communications	Marketing Management
Financial Math	Professional and Leadership Development
Fundamentals of Business, Marketing and Finance	Social Media in Business
Fundamentals of Project Management	Virtual Enterprise 1
Global Business	Virtual Enterprise 2
Google Applications	Virtual Enterprise 3
Human Resource Management	Virtual Enterprise 4
Integrated Business Applications 1	Business Management and Administration, work-based credit

**Human Resources Management ..... 521001**

**Required Courses:**

Business Law  
Human Resource Management

***Additional approved courses if needed to meet state-recognized program requirements:***

Business Principles and Management	Google Applications
Digital Desktop Publishing	Integrated Business Applications 1
Entrepreneurship	Integrated Business Applications 2
Essential Communications	International Business and Marketing
Financial Math	Professional and Leadership Development
Fundamentals of Business, Marketing, and Finance	Business Management and Administration, work-based credit
Global Business	

**Operations Management ..... 520204**

**Required Courses:**

Virtual Enterprise 1  
 Virtual Enterprise 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1	Google Applications
Accounting 2	Integrated Business Applications 1
Business Law	Integrated Business Applications 2
Business Principles and Management	International Business and Marketing
Digital Input Technologies	Logistics and Business Processes
Entrepreneurship	Marketing
Essential Communications	Professional and Leadership Development
Financial Math	Social Media in Business
Fundamentals of Business, Marketing, and Finance	Virtual Enterprise 3
Fundamentals of Project Management	Virtual Enterprise 4
Global Business	Business Management and Administration, work-based credit

## Education and Training

Planning, managing, and providing education and training services and related learning support services.

Course Code	Course Title
5800	Child Development 1
5801	Child Development 2
5700	Early Childhood Education 1
5701	Early Childhood Education 2
5702	Introduction to Early Childhood Education
5703	Introduction to Teaching 1
5704	Introduction to Teaching 2
5705	Teacher Cadet - CATE
6390	Education and Training, work-based credit
6399	Education and Training, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
131210	Early Childhood Education
130101	Introduction to Teaching

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### Early Childhood Education ..... 131210

#### **Required Courses:**

Early Childhood Education 1  
Early Childhood Education 2

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Child Development 1	Introduction to Early Childhood Education
Child Development 2	Introduction to Teaching 1
Entrepreneurship	Parenting Education 1
Family Life Education 1	Parenting Education 2
Family Life Education 2	Teacher Cadet - CATE
Foods and Nutrition 1	Web Page Design and Development 1
Foods and Nutrition 2	Education and Training, work-based credit
Integrated Business Applications 1	

### Introduction to Teaching ..... 130101

#### **Required Courses:**

Introduction to Teaching 1  
Introduction to Teaching 2

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Child Development 1	Integrated Business Applications 1
Child Development 2	Introduction to Early Childhood Education
Early Childhood Education 1	Parenting Education 1
Entrepreneurship	Parenting Education 2
Family Life Education 1	Teacher Cadet - CATE
Family Life Education 2	Web Page Design and Development 1
Human Development: Responsible Life Choices 1	Education and Training, work-based credit
Human Development: Responsible Life Choices 2	

## Finance

Planning, managing, and providing education and training services and related learning support services.

Course Code	Course Title
5001	Accounting 1
5005	Accounting 2
5271	Banking Services
5273	Business Finance
5282	Financial Literacy (Refer to Page 86 for More Info)
5281	Financial Math
5275	Insurance
5277	Securities and Investments
6190	Finance, work-based credit
6899	Finance, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
520801	Academy of Finance
520301	Accounting
520803	Banking Services
520804	Business Finance
521701	Insurance
520807	Securities and Investments

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### **Academy of Finance ..... 520801**

Schools meeting the National Academy Foundation (NAF) membership requirements must follow the NAF curriculum (<http://www.naf.org>).

### **Accounting ..... 520301**

#### **Required Courses:**

Accounting 1  
Accounting 2

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Banking Services  
Business Finance  
Business Principles and Management  
Entrepreneurship  
Essential Communications  
Financial Math  
Fundamentals of Business, Marketing and Finance  
Insurance  
Integrated Business Applications 1  
Integrated Business Applications 2  
Personal Finance  
Professional and Leadership Development  
Securities and Investments  
Virtual Enterprise 1  
Virtual Enterprise 2  
Virtual Enterprise 3  
Virtual Enterprise 4  
Finance, work-based credit

**Banking Services ..... 520803****Required Courses:**

Banking Services  
Business Finance

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1  
Accounting 2  
Business Law  
Business Principles and Management  
Entrepreneurship  
Essential Communications  
Financial Math  
Fundamentals of Business, Marketing and Finance  
Insurance  
Integrated Business Applications 1  
Integrated Business Applications 2  
Personal Finance  
Professional and Leadership Development  
Professional Sales  
Securities and Investments  
Finance, work-based credit

**Business Finance ..... 520804****Required Courses:**

Accounting 1  
Business Finance

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 2  
Banking Services  
Business Law  
Entrepreneurship  
Essential Communications  
Financial Math  
Fundamentals of Business, Marketing and Finance  
Global Business  
Insurance  
Integrated Business Applications 1  
Integrated Business Applications 2  
International Business and Marketing  
Personal Finance  
Professional and Leadership Development  
Securities and Investments  
Finance, work-based credit



**Insurance ..... 521701****Required Courses:**

Business Finance  
Insurance

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1  
Accounting 2  
Banking Services  
Business Law  
Business Principles and Management  
Entrepreneurship  
Essential Communications  
Financial Math  
Fundamentals of Business, Marketing and Finance  
Integrated Business Applications 1  
Integrated Business Applications 2  
Personal Finance  
Professional and Leadership Development  
Professional Sales  
Securities and Investments  
Finance, work-based credit

**Securities and Investments ..... 520807****Required Courses:**

Business Finance  
Securities and Investments

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1  
Accounting 2  
Banking Services  
Business Law  
Business Principles and Management  
Entrepreneurship  
Essential Communications  
Financial Math  
Fundamentals of Business, Marketing and Finance  
Insurance  
Integrated Business Applications 1  
Integrated Business Applications 2  
Personal Finance  
Professional and Leadership Development  
Professional Sales  
Finance, work-based credit

## Health Science

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Course Code	Course Title
5583	Biomedical Innovation
5531	Emergency Medical Services 1
5532	Emergency Medical Services 2
5533	Emergency Medical Services 3
5550	Health Science 1
5551	Health Science 2
5552	Health Science 3
5560	Health Science Clinical Study
5581	Human Body Systems
5530	Introduction to Emergency Medical Services (Phasing out July 2016)
5582	Medical Interventions
5540	Medical Terminology
5570	Pharmacology for Medical Careers
5520	Practical Nursing, Phase 1
5580	Principles of Biomedical Sciences
5555	Sports Medicine 1
5556	Sports Medicine 2
5590	Health Science, work-based credit
5591	Sports Medicine, work-based credit
5599	Health Science, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
260102	Biomedical Sciences (Project Lead the Way)
510999	EMS
510000	Health Science
511600	Practical Nursing
310505	Sports Medicine

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### **Biomedical Sciences (Project Lead the Way)..... 260102**

#### **Required Courses:**

Human Body Systems  
Principles of Biomedical Sciences

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Biomedical Innovation	Medical Interventions
Emergency Medical Services 1	Medical Terminology
Emergency Medical Services 2	Pharmacology for Medical Careers
Emergency Medical Services 3	Practical Nursing Phase 1
Health Science 1	Sports Medicine 1
Health Science 2	Sports Medicine 2
Health Science 3	Health Science, work based credit
Health Science Clinical Study	Sports Medicine, work-based credit
Introduction to Emergency Medical Services (Phasing out July 2016)	

**EMS ..... 510999****Required Courses:**

Emergency Medical Services 1  
 Emergency Medical Services 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Emergency Medical Services 3	Medical Terminology
Health Science 1	Pharmacology for Medical Careers
Health Science 2	Practical Nursing, Phase 1
Health Science 3	Principles of Biomedical Sciences
Health Science Clinical Study	Sports Medicine 1
Human Body Systems	Sports Medicine 2
Introduction to Emergency Medical Services (Phasing out July 2016)	Health Science, work-based credit
Medical Interventions	Sports Medicine, work-based credit

**Health Science ..... 510000****Required Courses:**

Health Science 1  
 Health Science 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Emergency Medical Services 1	Medical Terminology
Emergency Medical Services 2	Pharmacology for Medical Careers
Emergency Medical Services 3	Practical Nursing, Phase 1
Health Science 3	Principles of Biomedical Sciences
Health Science Clinical Study	Sports Medicine 1
Human Body Systems	Sports Medicine 2
Introduction to Emergency Medical Services (Phasing out July 2016)	Health Science, work-based credit
Medical Interventions	Sports Medicine, work-based credit

**Practical Nursing ..... 511600**

Practical Nursing, Phase 1

**Sports Medicine ..... 310505****Required Courses:**

Sports Medicine 1  
 Sports Medicine 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Emergency Medical Services 1	Introduction to Emergency Medical Services (Phasing out July 2016)
Emergency Medical Services 2	Medical Interventions
Emergency Medical Services 3	Medical Terminology
Health Science 1	Pharmacology for Medical Careers
Health Science 2	Practical Nursing, Phase 1
Health Science 3	Principles of Biomedical Sciences
Health Science Clinical Study	Health Science, work-based credit
Human Body Systems	Sports Medicine, work-based credit

## Hospitality and Tourism

Hospitality and Tourism encompasses the management, marketing, and operations of restaurants and other food services, lodging, attractions, recreation events, and travel-related services.

Course Code	Course Title
5723	Baking and Pastry
5720	Culinary Arts 1
5721	Culinary Arts 2
5476	Hospitality Management and Operations 1
5477	Hospitality Management and Operations 2
5722	Introduction to Culinary Arts
5478	Introduction to Hospitality Management and Operations
5190	Hospitality and Tourism, work-based credit
5199	Hospitality and Tourism, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
520905	Culinary Arts
520904	Hospitality Management and Operations

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### Culinary Arts ..... 520905

#### **Required Courses:**

Culinary Arts 1  
 Culinary Arts 2  
 OR  
 Culinary Arts 1  
 Baking and Pastry  
 OR  
 Culinary Arts 1  
 Culinary Arts 2  
 Baking and Pastry

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1	Introduction to Culinary Arts
Entrepreneurship	Introduction to Hospitality Management and Operations
Foods and Nutrition 1	Sports Nutrition 1
Foods and Nutrition 2	Sports Nutrition 2
Hospitality Management and Operations 1	Web Page Design and Development 1
Integrated Business Applications 1	Hospitality and Tourism, work-based credit

### Hospitality Management and Operations ..... 520904

#### **Required Courses:**

Hospitality Management and Operations 1  
 Hospitality Management and Operations 2

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1	Introduction to Culinary Arts
Culinary Arts 1	Introduction to Hospitality Management and Operations
Entrepreneurship	Marketing Management
Foods and Nutrition 1	Sports and Entertainment Marketing
Foods and Nutrition 2	Web Page Design and Development 1
Integrated Business Applications 1	Hospitality and Tourism, work-based credit

## Human Services/Family and Consumer Sciences

Preparing individuals for employment in career pathways that relate to families and human needs.

Course Code	Course Title
6158	Barber/Master Hair Care 1
6159	Barber/Master Hair Care 2
6160	Barber/Master Hair Care 3
6161	Barber/Master Hair Care 4
6150	Cosmetology 1
6151	Cosmetology 2
6152	Cosmetology 3
6153	Cosmetology 4
6162	Esthetics 1
6163	Esthetics 2
6164	Esthetics 3
6165	Esthetics 4
5808	Family and Consumer Sciences 1
5809	Family and Consumer Sciences 2
5820	Family Life Education 1
5821	Family Life Education 2
5804	Fashion, Fabric, and Design 1
5805	Fashion, Fabric, and Design 2
5812	Financial Fitness 1
5813	Financial Fitness 2
5824	Foods and Nutrition 1
5825	Foods and Nutrition 2
5830	Housing and Interiors 1
5831	Housing and Interiors 2
5834	Human Development: Responsible Life Choices 1
5835	Human Development: Responsible Life Choices 2
6154	Nail Technology 1
6155	Nail Technology 2
6156	Nail Technology 3
6157	Nail Technology 4
5816	Parenting Education 1
5817	Parenting Education 2
5759	Sports Nutrition 1
5760	Sports Nutrition 2
5890	Family and Consumer Sciences, work-based credit
5790	Human Services, work-based credit
5899	Family and Consumer Sciences, LBA
5799	Human Services, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
120402	<i>Barber/Master Hair Care</i>
120401	Cosmetology
120409	Esthetics
190101	Family and Consumer Sciences
120410	Nail Technology

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum of 4 units of credit.***

**Barber/Master Hair Care ..... 120402**

- Barber/Master Hair Care 1
- Barber/Master Hair Care 2
- Barber/Master Hair Care 3
- Barber/Master Hair Care 4
- Human Services, work-based credit

**Cosmetology ..... 120401**

- Cosmetology 1
- Cosmetology 2
- Cosmetology 3
- Cosmetology 4
- Human Services, work-based credit

**Esthetics ..... 120409**

- Esthetics 1
- Esthetics 2
- Esthetics 3
- Esthetics 4
- Human Services, work-based credit

**Family and Consumer Sciences ..... 190101**

**Note:** Program completers in Family and Consumer Sciences must select courses that show a clear path to a career and be able to complete an approved assessment successfully. A minimum of four units of credit are required to be a completer.

**Required Courses (at least two of the following):**

Child Development 1	Foods and Nutrition 2
Child Development 2	Housing and Interiors 1
Family and Consumer Sciences 1	Housing and Interiors 2
Family and Consumer Sciences 2	Human Development: Responsible Life Choices 1
Family Life Education 1	Human Development: Responsible Life Choices 2
Family Life Education 2	Parenting Education 1
Fashion, Fabric, and Design 1	Parenting Education 2
Fashion, Fabric, and Design 2	Sports Nutrition 1
Financial Fitness 1	Sports Nutrition 2
Financial Fitness 2	Family and Consumer Sciences, work-based credit
Foods and Nutrition 1	

**Additional approved courses if needed to meet state-recognized program requirements:**

Culinary Arts 1	Interior Design 1
Early Childhood Education 1	Introduction to Culinary Arts
Fashion Design and Apparel Construction 1	Introduction to Early Childhood Education
Food Science and Dietetics 1	Introduction to Teaching 1

**Nail Technology..... 120410**

- Nail Technology 1
- Nail Technology 2
- Nail Technology 3
- Nail Technology 4
- Human Services, work-based credit

## Information Technology

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

<b>Course Code</b>	<b>Course Title</b>
5351	Advanced Animation
5372	Advanced Cyber Security
5374	Computer Forensics
5050	Computer Programming 1
5051	Computer Programming 2
5056	Computer Programming with C++ 1
5057	Computer Programming with C++ 2
5052	Computer Programming with Java 1
5053	Computer Programming with Java 2
5054	Computer Programming with Visual Basic 1
5055	Computer Programming with Visual Basic 2
5320	Computer Service Technology 1
5321	Computer Service Technology 2
5322	Computer Service Technology 3
5323	Computer Service Technology 4
5370	Cyber Security Fundamentals
5324	Database Design and Programming with SQL
5326	Database Programming with PL/SQL
5023	Exploring Computer Science
5350	Foundations of Animation
5352	Game Design and Development
5361	GIS Technology 1
5362	GIS Technology 2
5270	Information Technology Foundations
5025	IT Fundamentals
5058	Java Fundamentals and Java Programming
5310	Networking 1
5311	Networking 2
5312	Networking 3
5313	Networking 4
5327	SAS Programming 1
5328	SAS Programming 2
5031	Web Page Design and Development 1
5033	Web Page Design and Development 2
5390	Information Technology, work-based credit
5399	Information Technology, LBA
<b>CIP Code</b>	<b>Program Title</b> (See below for the approved courses for each CATE program)
151202	Information Support and Services
110901	Networking Systems
110201	Programming and Software Development
110801	Web and Digital Communications

Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.

**Information Support and Services..... 151202**

**Required Courses:**

- Computer Service Technology 1
- Computer Service Technology 2

**Additional approved courses if needed to meet state-recognized program requirements:**

Advanced Cyber Security	Exploring Computer Science
Computer Forensics	Game Design and Development
Computer Programming 1	Home Systems Technology
Computer Programming 2	Information Technology Foundations
Computer Programming with C++ 1	IT Fundamentals
Computer Programming with C++ 2	Networking 1
Computer Programming with Java 1	Networking 2
Computer Programming with Java 2	Networking 3
Computer Programming with Visual Basic 1	Networking 4
Computer Programming with Visual Basic 2	Professional and Leadership Development
Computer Service Technology 3	SAS Programming 1
Computer Service Technology 4	SAS Programming 2
Cyber Security Fundamentals	Web Page Design and Development 1
Database Design and Programming w/SQL	Web Page Design and Development 2
Database Programming with PL/SQL	Information Technology, work-based credit
Entrepreneurship	

**Networking Systems ..... 110901**

**Required Courses:**

- Networking 1
- Networking 2

**Additional approved courses if needed to meet state-recognized program requirements:**

Advanced Cyber Security	Database Design and Programming w/SQL
Computer Forensics	Database Programming with PL/SQL
Computer Programming 1	Entrepreneurship
Computer Programming 2	Exploring Computer Science
Computer Programming with C++ 1	Home Systems Technology
Computer Programming with C++ 2	Information Technology Foundations
Computer Programming with Java 1	IT Fundamentals
Computer Programming with Java 2	Networking 3
Computer Programming with Visual Basic 1	Networking 4
Computer Programming with Visual Basic 2	Professional and Leadership Development
Computer Service Technology 1	SAS Programming 1
Computer Service Technology 2	SAS Programming 2
Computer Service Technology 3	Web Page Design and Development 1
Computer Service Technology 4	Web Page Design and Development 2
Cyber Security Fundamentals	Information Technology, work-based credit



**Programming and Software Development..... 110201**

**Required Courses:**

- Computer Programming 1
- Computer Programming 2
- OR
- Computer Programming with C++ 1
- Computer Programming with C++ 2
- OR
- Computer Programming with Java 1
- Computer Programming with Java 2
- OR
- Computer Programming with Visual Basic 1
- Computer Programming with Visual Basic 2
- OR
- Database Design and Programming with SQL
- Database Programming with PL/SQL

***Additional approved courses if needed to meet state-recognized program requirements:***

Advanced Animation	Information Technology Foundations
Advanced Cyber Security	IT Fundamentals
Computer Forensics	Java Fundamentals and Java Programming
Cyber Security Fundamentals	Professional and Leadership Development
Entrepreneurship	SAS Programming 1
Exploring Computer Science	SAS Programming 2
Foundations of Animation	Web Page Design and Development 1
Game Design and Development	Web Page Design and Development 2
GIS Technology 1	Information Technology, work-based credit
GIS Technology 2	

**Web and Digital Communications..... 110801**

**Required Courses:**

- Web Page Design and Development 1
- Web Page Design and Development 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Advanced Animation	Google Applications
Computer Programming 1	Image Editing 1
Computer Programming 2	Image Editing 2
Digital Desktop Publishing	Information Technology Foundations
Digital Input Technologies	Integrated Business Applications 1
Digital Media Marketing	Integrated Business Applications 2
Digital Multimedia	IT Fundamentals
Entrepreneurship	Java Fundamentals and Java Programming
Exploring Computer Science	Professional and Leadership Development
Foundations of Animation	Social Media in Business
Game Design and Development	Information Technology, work-based credit

## Law, Public Safety, Corrections, and Security

Planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical support services.

Course Code	Course Title
6512	Emergency and Fire Management Services 1
6513	Emergency and Fire Management Services 2
6514	Fire Fighter 1 #
6515	Fire Fighter 2 #
6505	Introduction to Law, Public Safety, Corrections and Security
6510	Law Enforcement Services 1
6511	Law Enforcement Services 2
6590	Law, Public Safety, Corrections and Security, work-based credit
6599	Law, Public Safety, Corrections and Security, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
430203	Emergency and Fire Management Services
430107	Law Enforcement Services

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### Emergency and Fire Management Services ..... 430203

Fire Fighter 1  
Fire Fighter 2

***Additional approved courses if needed to meet state-recognized program requirements:***

Introduction to Law, Public Safety, Corrections and Security  
Law, Public Safety, Corrections and Security, work-based credit

OR

Emergency and Fire Management Services 1  
Emergency and Fire Management Services 2  
Introduction to Law, Public Safety, Corrections and Security  
Law, Public Safety, Corrections and Security, work-based credit

**Note:** A state-recognized CATE program must include a *minimum* of 4 Carnegie units of credit. The Emergency and Fire Management Services program must include multi-unit courses to meet this requirement.

### Law Enforcement Services ..... 430107

Introduction to Law, Public Safety, Corrections and Security  
Law Enforcement Services 1  
Law Enforcement Services 2  
Law, Public Safety, Corrections and Security, work-based credit

**Note:** A state-recognized CATE program must include a *minimum* of 4 Carnegie units of credit. The Law Enforcement Services program must include multi-unit courses to meet this requirement.

## Manufacturing

Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Course Code	Course Title
6133	Electronics Technology 1
6134	Electronics Technology 2
6135	Electronics Technology 3
6136	Electronics Technology 4
6045	Introduction to Manufacturing Technology
6230	Machine Technology 1
6231	Machine Technology 2
6232	Machine Technology 3
6233	Machine Technology 4
6210	Mechatronics 1-Industrial Safety
6211	Mechatronics 2-Hand & Power Tool Op.
6212	Mechatronics 3-Hydraulics & Pneumatics
6213	Mechatronics 4-AC-DC Circuits
6260	Metal Fabrication 1
6261	Metal Fabrication 2
6262	Metal Fabrication 3
6263	Metal Fabrication 4
6340	Welding Technology 1
6341	Welding Technology 2
6342	Welding Technology 3
6343	Welding Technology 4
6490	Manufacturing, work-based credit
6499	Manufacturing, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
470101	Electronics Technology
480503	Machine Technology
150404	Mechatronics Integrated Technologies
480501	Metal Fabrication
480508	Welding Technology

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### Electronics Technology..... 470101

Electronics Technology 1  
 Electronics Technology 2  
 Electronics Technology 3  
 Electronics Technology 4  
 Manufacturing, work-based credit

### Machine Technology ..... 480503

Machine Technology 1  
 Machine Technology 2  
 Machine Technology 3  
 Machine Technology 4  
 Manufacturing, work-based credit

**Mechatronics Integrated Technologies..... 150404**

Mechatronics 1-Industrial Safety  
Mechatronics 2-Hand & Power Tool Op.  
Mechatronics 3-Hydraulics & Pneumatics  
Mechatronics 4-AC-DC Circuits  
Manufacturing, work-based credit

OR

**Required Courses:**

PLTW-Introduction to Engineering Design  
PLTW-Principles of Engineering

**AND two or more of the following:**

Mechatronics 1-Industrial Safety  
Mechatronics 2-Hand & Power Tool Op.  
Mechatronics 3-Hydraulics & Pneumatics  
Mechatronics 4-AC-DC Circuits  
Manufacturing, work-based credit

**Metal Fabrication ..... 480501**

Metal Fabrication 1  
Metal Fabrication 2  
Metal Fabrication 3  
Metal Fabrication 4  
Manufacturing, work-based credit

**Welding Technology ..... 480508**

Welding Technology 1  
Welding Technology 2  
Welding Technology 3  
Welding Technology 4  
Manufacturing, work-based credit

## Marketing

Planning, managing, and performing marketing activities to reach organizational objectives.

Course Code	Course Title
5470	Advertising
5422	Digital Media Marketing
5410	Fashion Merchandising
5440	Global Business
5421	Marketing
5431	Marketing Management
5423	Marketing Research
5430	Merchandising
5471	Professional Sales
5425	<i>Sports and Entertainment Marketing (Formerly Sports and Entertainment Marketing 1)</i>
5426	Sports and Entertainment Management
5091	Marketing, work-based credit
5099	Marketing, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
090903	Marketing Communications
521401	Marketing Management
521402	Marketing Research
521802	Merchandising
521804	Professional Sales

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### Marketing Communications ..... 090903

#### **Required Courses:**

Advertising or Digital Media Marketing  
Marketing

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

Digital Desktop Publishing	Professional and Leadership Development
Digital Multimedia	Professional Sales
Entrepreneurship	Social Media in Business
Essential Communications	Sports and Entertainment Marketing
Global Business	Virtual Enterprise 1
Google Applications	Virtual Enterprise 2
Image Editing 1	Virtual Enterprise 3
Image Editing 2	Virtual Enterprise 4
Integrated Business Applications 1	Web Page Design and Development 1
Integrated Business Applications 2	Web Page Design and Development 2
International Business and Marketing	Marketing, work-based credit
Marketing Research	

**Marketing Management..... 521401****Required Courses:**

Marketing  
Marketing Management

***Additional approved courses if needed to meet state-recognized program requirements:***

Accounting 1	Integrated Business Applications 2
Accounting 2	Logistics and Business Processes
Advertising	Marketing Research
Business Law	Professional and Leadership Development
Business Principles and Management	Professional Sales
Entrepreneurship	Social Media in Business
Essential Communications	Sports and Entertainment Management
Fundamentals of Project Management	Virtual Enterprise 1
Google Applications	Virtual Enterprise 2
Hospitality Management and Operations 1	Virtual Enterprise 3
Hospitality Management and Operations 2	Virtual Enterprise 4
Integrated Business Applications 1	Marketing, work-based credit

**Marketing Research ..... 521402****Required Courses:**

Marketing  
Marketing Research

***Additional approved courses if needed to meet state-recognized program requirements:***

Advertising	Professional and Leadership Development
Entrepreneurship	Professional Sales
Essential Communications	SAS Programming 1
Global Business	SAS Programming 2
Google Applications	Social Media in Business
Hospitality Management and Operations 1	Sports and Entertainment Marketing
Hospitality Management and Operations 2	Virtual Enterprise 1
Integrated Business Applications 1	Virtual Enterprise 2
Integrated Business Applications 2	Virtual Enterprise 3
International Business and Marketing	Virtual Enterprise 4
Merchandising	Marketing, work-based credit

**Merchandising ..... 521802****Required Courses:**

Marketing  
Merchandising

***Additional approved courses if needed to meet state-recognized program requirements:***

Advertising	Integrated Business Applications 2
Digital Desktop Publishing	International Business and Marketing
Digital Media Marketing	Marketing Research
Entrepreneurship	Professional and Leadership Development
Essential Communications	Professional Sales
Fashion Merchandising	Sports and Entertainment Marketing
Global Business	Social Media in Business
Google Applications	Web Page Design and Development 1
Image Editing 1	Web Page Design and Development 2
Image Editing 2	Marketing, work-based credit
Integrated Business Applications 1	

**Professional Sales ..... 521804****Required Courses:**

Marketing  
Professional Sales

***Additional approved courses if needed to meet state-recognized program requirements:***

Digital Desktop Publishing	Marketing Research
Digital Media Marketing	Merchandising
Entrepreneurship	Professional and Leadership Development
Essential Communications	Social Media in Business
Global Business	Sports and Entertainment Marketing
Google Applications	Virtual Enterprise 1
Hospitality Management and Operations 1	Virtual Enterprise 2
Hospitality Management and Operations 2	Virtual Enterprise 3
Integrated Business Applications 1	Virtual Enterprise 4
Integrated Business Applications 2	Marketing, work-based credit
International Business and Marketing	

## Science, Technology, Engineering, and Mathematics

Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services and research and development services.

Course Code	Course Title
6371	3D Solid Modeling
6381	Clean Energy Applications
6380	Clean Energy Systems
5757	Food Science and Dietetics 1
5758	Food Science and Dietetics 2
6040	Industrial Technology Education (Exploratory) 1
6041	Industrial Technology Education (Exploratory) 2
6370	Introduction to Engineering
6056	PLTW-Aerospace Engineering
6057	PLTW-Biotechnical Engineering
6058	PLTW-Civil Engineering and Architecture
6053	PLTW-Computer Integrated Manufacturing
6096	PLTW-Computer Software Engineering
6052	PLTW-Digital Electronics
6054	PLTW-Engineering Design and Development
6051	PLTW-Introduction to Engineering Design
6095	PLTW-Introduction to Pre-Engineering Technology
6050	PLTW-Principles of Engineering
6090	Pre-Engineering/Engineering & Industrial Technology Education, work-based credit
6099	Pre-Engineering/Industrial Technology Education, LBA
6890	Science, Technology, Engineering and Mathematics, work-based credit#
CIP Code	Program Title (See below for the approved courses for each CATE program)
140101	Pre-Engineering (Project Lead the Way)
190501	Food Science and Dietetics

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### **Pre-Engineering (Project Lead the Way) ..... 140101**

#### **Required Courses:**

PLTW-Introduction to Engineering Design  
 PLTW-Principles of Engineering

#### ***Additional approved courses if needed to meet state-recognized program requirements:***

PLTW-Aerospace Engineering  
 PLTW-Biotechnical Engineering  
 PLTW-Civil Engineering and Architecture  
 PLTW-Computer Integrated Manufacturing  
 PLTW-Computer Software Engineering  
 PLTW-Digital Electronics  
 PLTW-Engineering Design and Development  
 Pre-Engineering/Engineering & Industrial Technology Education, work-based credit



**Food Science and Dietetics ..... 190501**

**Required Courses:**

Food Science and Dietetics 1  
Food Science and Dietetics 2

***Additional approved courses if needed to meet state-recognized program requirements:***

\*Accounting 1  
\*Child Development 1  
\*Child Development 2  
Foods and Nutrition 1  
Foods and Nutrition 2  
Food Processing  
\*Human Development: Responsible Life Choices 1  
\*Human Development: Responsible Life Choices 2  
\*Integrated Business Application 1  
\*Marketing  
Sports Nutrition 1  
Sports Nutrition 2  
\*Web Page Design and Development 1

**\*Note:** Accounting 1, Child Development 1, Child Development 2, Human Development: Responsible Life Choices 1, Human Development: Responsible Life Choices 2, Integrated Business Application 1, Marketing, and Web Page Design and Development 1 will not be included in the program effective **July 2016**.

## Transportation, Distribution, and Logistics

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

Course Code	Course Title
6020	Automotive Collision Repair Technology 1
6021	Automotive Collision Repair Technology 2
6022	Automotive Collision Repair Technology 3
6023	Automotive Collision Repair Technology 4
6030	Automotive Technology 1
6031	Automotive Technology 2
6032	Automotive Technology 3
6033	Automotive Technology 4
6310	Diesel Engine Technology 1
6311	Diesel Engine Technology 2
6312	Diesel Engine Technology 3
6313	Diesel Engine Technology 4
6015	Introduction to Transportation, Distribution and Logistics
6300	Power Equipment Technology 1
6301	Power Equipment Technology 2
6302	Power Equipment Technology 3
6303	Power Equipment Technology 4
6790	Transportation, Distribution and Logistics, work-based credit
6199	Transportation, Distribution and Logistics, LBA
CIP Code	Program Title (See below for the approved courses for each CATE program)
470603	Automotive Collision Repair Technology
470604	Automotive Technology
470605	Diesel Engine Technology
470606	Power Equipment Technology

**Each state-recognized CATE program identified below must include only approved courses listed for each CIP code and must offer a *minimum* of 4 units of credit.**

### **Automotive Collision Repair Technology ..... 470603**

Automotive Collision Repair Technology 1  
 Automotive Collision Repair Technology 2  
 Automotive Collision Repair Technology 3  
 Automotive Collision Repair Technology 4  
 Transportation, Distribution and Logistics, work-based credit

### **Automotive Technology ..... 470604**

Automotive Technology 1  
 Automotive Technology 2  
 Automotive Technology 3  
 Automotive Technology 4  
 Transportation, Distribution and Logistics, work-based credit

**Diesel Engine Technology.....470605**

- Diesel Engine Technology 1
- Diesel Engine Technology 2
- Diesel Engine Technology 3
- Diesel Engine Technology 4
- Transportation, Distribution and Logistics, work-based credit

**Power Equipment Technology .....470606**

- Power Equipment Technology 1
- Power Equipment Technology 2
- Power Equipment Technology 3
- Power Equipment Technology 4
- Transportation, Distribution and Logistics, work-based credit

The Office of Career and Technology Education currently offers no courses in the following cluster:

**Government and Public Administration**

Executing governmental functions to include governance; national security; foreign service; planning; revenue and taxation; regulation; and management and administration at the local, state, and federal levels.

# Middle School CATE Courses

## Seventh and Eighth Grades

Course Code	Course Title
2841	Gateway to Technology
2840	Industrial Technology Education
2856	Introduction to Agriculture
2830	Introduction to Career Clusters
2857	Introduction to FACS 1
2858	Introduction to FACS 2
<p>Use 5008 (Computer Applications), 5100 (Keyboarding), 5181 (Digital Literacy), 5010 (Multimedia Basics), 5011 (Google Basics) and 5282 (Financial Literacy) as the course codes for middle school students taking these courses for high school credit if (a) the courses follow the CATE curriculum standards for Computer Applications, Keyboarding, Digital Literacy, Multimedia Basics, Google Basics, and Financial Literacy and (b) if a teacher with business education certification teaches the courses.</p>	
5008	Computer Applications (high school credit)
5181	Digital Literacy (high school credit)
5282	Financial Literacy (high school credit)
5011	Google Basics (high school credit)
5100	Keyboarding (high school credit)
5010	Multimedia Basics (high school credit)

## Appendix D Nontraditional CATE Programs

<b>Nontraditional Programs for Females</b>	
<b>CIP Code</b>	<b>Program Title</b>
010205	Agricultural Mechanics and Technology
470201	HVAC Technology
151301	Architectural/Mechanical Design
470603	Automotive Collision Repair Technology
470604	Automotive Technology
460000	Building Construction Cluster
480703	Cabinetmaking
460201	Carpentry
470103	Communication Electronics (Program phased out July 2013)
470101	Electronics Technology
470605	Diesel Engine Technology
460301	Electricity
430203	Emergency and Fire Management Services
030101	Environmental and Natural Resources Management
520201	General Management
010601	Horticulture
470105	Industrial Electronics (Program phased out July 2013)
151202	Information Support and Services
430107	Law Enforcement Services
480503	Machine Technology
460101	Masonry
150404	Mechatronics Integrated Technologies
480501	Metal Fabrication
110901	Networking Systems
011101	Plant and Animal Systems
460503	Plumbing
110201	Programming and Software Development
140101	Pre-Engineering (Project Lead The Way)
470606	Power Equipment Technology
480508	Welding Technology

<b>Nontraditional Programs for Males</b>	
<b>CIP Code</b>	<b>Program Title</b>
520401	Administrative Services
120401	Cosmetology
131210	Early Childhood Education
190501	Food Science and Dietetics
120410	Nail Technology

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