



WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

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Office of West Virginia
Secretary Of State

**NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE EXEMPT, INTERPRETIVE OR PROCEDURAL
RULE**

AGENCY: Education TITLE-SERIES: 126-044M

RULE TYPE: Legislative Exempt Amendment to Existing Rule: Yes Repeal of existing rule: No

RULE NAME: West Virginia College- and Career-Readiness
Programs of Study/Standards for Career
Technical Education (2520.13)

CITE STATUTORY AUTHORITY: W. Va. Code §§29A-3B-1, et seq.; W. Va. Board of Education v. Hechler,
180 W. Va. 451, 376 S.E.2d 839 (1988); and, W. Va. Bd. of Educ. v. Bd. of
Educ., 239 W. Va. 705, 806 S.E. 2d 136 (2017)

This rule is filed with the Secretary of State. This rule becomes effective on the following date:

July 1, 2024

BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENT IS TRUE AND CORRECT.

Yes

Kelli D Talbott -- By my signature, I certify that I am the person authorized to file legislative rules, in accordance with West Virginia Code §29A-3-11 and §39A-3-2.

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**TITLE 126
LEGISLATIVE RULE
BOARD OF EDUCATION**

**SERIES 44M
WEST VIRGINIA COLLEGE- AND CAREER-READINESS PROGRAMS OF STUDY/STANDARDS
FOR CAREER TECHNICAL EDUCATION (2520.13)**

§126-44M-1. General.

1.1. Scope. -- W. Va. 126CSR42, Policy 2510, Assuring the Quality of Education: Regulations for Education Programs (Policy 2510), provides a definition of a delivery system for, and an assessment and accountability system for a thorough and efficient education for West Virginia public school students. W. Va. 126CSR44M, Policy 2520.13, West Virginia College- and Career-Readiness Programs of Study/Standards for Career Technical Education (Policy 2520.13), defines the college- and career-readiness programs of study/standards for career technical education (CTE) as required by Policy 2510.

1.2. Authority. -- W. Va. Constitution, Article XII, §2; and W. Va. Code §§18-2-5, 18-2E-1, 18-2E-11, 18-5-19B, 18-6-1 et seq., 18-9A-22, and 30-7A-8.

1.3. Filing Date. -- November 8, 2023.

1.4. Effective Date. -- July 1, 2024.

1.5. Repeal of Former Rule. -- This rule repeals and replaces W. Va. 126CSR44M, Policy 2520.13, West Virginia College- and Career-Readiness Programs of Study/Standards for Career Technical Education, filed February 10, 2022, and effective July 1, 2022.

§126-44M-2. Purpose.

2.1. This policy defines the West Virginia college- and career-readiness programs of study/content standards for the programs of study required by Policy 2510.

§126-44M-3. Incorporation by Reference.

3.1. A copy of the West Virginia College- and Career-Readiness Programs of Study/Standards for CTE is attached and incorporated by reference into this policy. Copies of Policy 2520.13 are available from the Office of the Secretary of State and the West Virginia Department of Education (WVDE).

§126-44M-4. Summary of the West Virginia College- and Career-Readiness Programs of Study/Content Standards for CTE.

4.1. The West Virginia Board of Education (WVBE) has the responsibility for establishing high-quality standards pertaining to all educational programs. The West Virginia College- and Career-readiness Programs of Study/Content Standards provide a focus for teachers to teach and students to learn those skills and competencies essential for future success in the workplace and further education. The document includes West Virginia college- and career-readiness programs of study/content standards by Career Cluster and Pathway; Simulated Workplace protocols; Advanced Career Education (ACE) programs

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of study; standards for participation in a co-curricular career technical student organization (CTSO); changes to student performance measures; definitions and acronyms; and West Virginia Education Information System (WVEIS) prefixes for each cluster.

§126-44M-5. Severability.

5.1. If any provision of this policy or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this policy.

**WEST VIRGINIA COLLEGE- AND CAREER-READINESS PROGRAMS OF STUDY/STANDARDS
FOR CAREER TECHNICAL EDUCATION (2520.13)**

Introduction

Policy 2520.13 has been developed with the goal of preparing students for a wide range of high-quality postsecondary opportunities within a Simulated Workplace environment. Specifically, college- and career-readiness refers to the knowledge, skills, and dispositions needed to be successful in obtaining an entry-level job and continued training in a specific craft and/or higher education that all lead to gainful employment. Policy 2520.13 establishes a set of knowledge and skills that are needed to transition into the workplace or higher education, as both realms share many expectations. All students, throughout their educational experience, should develop a full understanding of the career opportunities available and the education necessary to be successful in their chosen pathway and a plan to attain their goals.

Committees of educators and representatives from business and industry from across West Virginia were convened to revise the specific standards for each CTE program of study. The overarching goal was to build a rigorous, dynamic, and challenging CTE career pathway that would prepare students for the workforce and/or postsecondary education. The committees focused their efforts on shaping the pathways to align with industry standards, industry-recognized certifications, research, and best practice in the field of CTE. The contribution of these professionals was critical in creating pathways that further define the College- and Career-Readiness Programs of Study/Standards and are meaningful to classroom teachers.

Policy 2520.13 assures the delivery of rigorous and relevant CTE pathways to all West Virginia students. These elements, when used to guide the instructional process and delivered with the creativity and instructional expertise of West Virginia teachers, will become a powerful resource for preparing students to meet today's challenges.

Alphabetical Listing of State-Approved CTE Programs of Study and Clusters

Program of Study (POS)	POS #	Cluster
Advanced Medical Preparedness	HE1010	Health Science
Aerospace Engineering	ST2200	Science, Technology, Engineering, and Mathematics
Agribusiness Systems	AG0120	Agriculture, Food, and Natural Resources
Allied Health Sciences	HE0715	Health Science
Animal Processing	AG0230	Agriculture, Food, and Natural Resources
Animal Systems	AG0220	Agriculture, Food, and Natural Resources
Automotive Technology	TR1620	Transportation, Distribution, and Logistics
Aviation Maintenance Technician	MA1601	Manufacturing
Baking and Pastry	HO1015	Hospitality and Tourism
Biomedical Science	HE0780	Health Science
Broadcasting Technology	AV1680	Arts, A/V Technology, and Communications
Building Maintenance and Operations	AR1800	Architecture and Construction
Business Enterprise	BM1965	Business Management and Administration
Career and Work Skills Training (CWST)	BM0510	Business Management and Administration
Carpentry	AR1820	Architecture and Construction
Cisco Networking Academies	IT1640	Information Technology
Coding, AI and Game Design	IT1470	Information Technology
Collision Repair Technology	TR1670	Transportation, Distribution, and Logistics
Computer Aided Drafting and Design	AR1720	Architecture and Construction
Computer Science	IT2215	Information Technology
Computer Systems Repair Technology	IT1680	Information Technology
Dental Assisting	HE0700	Health Science
Diesel Equipment Technology	TR1740	Transportation, Distribution, and Logistics
Early Childhood Classroom Assistant Teacher	ED1320	Education and Training
E-Commerce	BM1960	Business Management and Administration
Electrical Technician	AR1760	Architecture and Construction
Emergency and Firefighting Management Services	LA2200	Law, Public Safety, Corrections, and Security
Energy and Power	ST2175	Science, Technology, Engineering, and Mathematics
Entrepreneurship and Innovation	BM1950	Business Management and Administration
Financial Management	FI1420	Finance
Forest Industry	AG0130	Agriculture, Food, and Natural Resources
Global Logistics and Supply Chain Management	TR2215	Transportation, Distribution, and Logistics
Graphic Design and Illustration	AV1840	Arts, A/V Technology, and Communications
HVAC Technician	AR1600	Architecture and Construction
Individual Work Ready Competencies (IWRC)	WV5502	West Virginia Specific Career
Industrial Equipment Maintenance	MA1870	Manufacturing
Industrial Robotics	MA1650	Manufacturing

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Information Management	IT1450	Information Technology
JROTC	GO1070	Government and Public Administration
Law and Public Safety	LA1020	Law, Public Safety, Corrections, and Security
Machine Tool Technology	MA1900	Manufacturing
Manufacturing: Production and Design	MA1910	Manufacturing
Marketing Management	MK0420	Marketing
Masonry	AR1910	Architecture and Construction
Millwork and Cabinetmaking	MA2120	Manufacturing
Multimedia Publishing	AV1684	Arts, A/V Technology, and Communications
Natural Resources Management	AG0170	Agriculture, Food, and Natural Resources
Pet Grooming	AG0223	Agriculture, Food, and Natural Resources
Plant Systems	AG0210	Agriculture, Food, and Natural Resources
Plumbing	AR2140	Architecture and Construction
Power Equipment Systems	TR1960	Transportation, Distribution, and Logistics
Power, Structural and Technical Systems	AG0110	Agriculture, Food, and Natural Resources
Pre-Cosmetology	HU2311	Human Services
Pre-Engineering	ST2460	Science, Technology, Engineering, and Mathematics
ProStart Restaurant Management	HO1010	Hospitality and Tourism
Robotics	MA1630	Manufacturing
School Service Personnel	HU2335	Human Services
Sign Language Translator	HU1038	Human Services
Social Journalism	AV1690	Arts, A/V Technology, and Communications
Social Services	HU2330	Human Services
Sports Medicine	HE0800	Health Science
Therapeutic Services	HE0723	Health Science
Tourism	HO1220	Hospitality and Tourism
Virtual Simulation and Game Development	IT1445	Information Technology
Welding	MA1980	Manufacturing

Definitions

Advanced Career Education (ACE). Programs designed to provide adult students with specific workforce training. ACE programs offer credentials, certifications, and licenses at nationally accredited career centers.

Advisory Councils. Comprised of two to five members external to the institution. Each member shall have knowledge and expertise in the occupational field represented. The advisory committee meets twice annually (in-person or virtually), with two external members present at each meeting. The advisory committee must follow an agenda and maintain typed minutes.

Alternate CTE Pathways. These pathways are intended to offer at-risk students additional flexibility while meeting their career aspirations by providing them with marketable job skills and opportunities to test for nationally recognized certifications.

- Career Integrated Experiential Learning (CIEL) – See W. Va. 126CSR32, Policy 2444.4, Issuance of the State of West Virginia High School Equivalency Diploma and Option Pathway.
- Individual Work Read Competencies (IWRC) – A state-approved CTE career pathway that provides students with a current Individualized Education Program (IEP) the opportunity to gain valuable work readiness and occupational skills as determined by the Student Assistance Team.

Career Technical Education (CTE). Provides an important pathway to success for secondary students and offers students an opportunity to personalize their education based on career interests and unique learning needs.

Career Technical Standards. A set of rigorous, high-quality pathway standards that define what students should know and be able to do after completing instruction in a related CTE program.

Career Clusters. Broad groupings of related careers as defined by the United States Department of Education (ED) and United States (U.S.) Department of Labor – Occupational Classification.

Career Experience. On-the-job training (OJT) experiences with an evaluation component that is designed to enhance technical instruction and academic competencies. Each industry training shall have an annually signed agreement between the school and the participating business.

Career Learning. Connects meaningful community service experiences with classroom learning and civic responsibility, allowing students to apply academic concepts to authentic projects in the community.

Career Pathways. Subcategories of closely related careers under each of the 16 Career Clusters.

Career Preparation. Blends classroom instruction with work experience where students work with an employer for a specific period. Career Preparation experiences are paid or unpaid, curriculum-driven, work-based learning opportunities established by a CTE program of study or courses.

Career Simulation. Implements workplace protocols in the classroom that align with the West Virginia workforce requirements, including random drug testing, professionalism, attendance, and safety.

Career Technical Student Organizations (CTSO). CTSOs are integrated into programs of study as co-curricular activities and designated as nonprofit organizations. CTSOs are authorized by the U.S. Congress in Perkins V.

Carl D. Perkins Career and Technical Education Act of 2006, as amended by the Strengthening Career and Technical Education for the 21st Century Act (Perkins V). Develops the academic knowledge and technical/employability skills of secondary and postsecondary education students who elect to enroll in CTE programs. Perkins V requires secondary, postsecondary, and business/industry to work together to strengthen CTE for students. Funding may be used for occupationally relevant equipment, vocational curriculum materials, materials for learning labs, curriculum development or modification, professional learning, career counseling and guidance activities, efforts for academic-vocational integration, supplemental services for special populations, recruit and retain vocational staff, support student organizations, and the expansion of middle school vocational programs. Funds are allocated to county boards of education, multi-county vocational centers, schools of diversion and transition, and postsecondary institutions with CTE programs. State Determined Levels of Performance are utilized to assess the effectiveness of Perkins at the state, county, and school levels.

Certification. A designation earned by a person to assure qualification to perform a particular job or task and is approved by a recognized credentialing agency.

Civil Rights. Overseen by the U. S. Department of Education’s Office of Civil Rights (OCR) to assure the civil rights compliance programs of state agencies that administer CTE. Pursuant to federal guidelines, entitled Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap in Vocational Education Programs (34 C.F.R. Part 100, Appendix B), state agencies are required to collect and analyze civil rights-related data, conduct periodic civil rights compliance reviews of selected subrecipients, notify subrecipients of violations and steps they must take to remedy unlawful discrimination, provide technical assistance upon request to subrecipients, and report these Methods of Administration (MOA) compliance activities and findings periodically to OCR.

CTE Completer. A student who has transcribed a full credit for each of the four core courses as defined within a state-approved CTE program of study and has completed the state-approved technical assessment.

CTE Concentrator. A student who has received at least two transcribed credits for core or survey courses in a state-approved or WVDE-recognized CTE program of study (grades 9-12).

CTE Course Types:

- **CTE Core Courses.** State-approved courses that appear as a primary or specialized course in a program of study.
- **CTE Enrichment Course.** State-approved optional courses provide enhanced opportunities to build upon CTE courses to meet student needs, interests, abilities, and goals.
- **CTE Exploratory Course.** A state-approved middle school non-credit-bearing course for exploring careers.
- **CTE Survey Course.** A WVDE-recognized experiential learning course.

CTE Multi-Completer. A student who has transcribed a full credit for each of the four core courses as defined within a state-approved CTE program of study and has completed the state-approved technical assessment for more than one CTE program of study.

CTE Participant. A student who receives a minimum of one transcribed credit for a state-approved CTE-core or enrichment, or a WVDE-recognized survey course.

CTE Portfolio. A resume and a collection of documents showcasing an individual's learning experiences, goals, and achievements.

CTE Program Categories:

- CTE Concentration. A locally approved sequence of four CTE courses.
- State-approved CTE program of study. Four CTE courses, as defined within a CTE program of study, that address state economic labor market needs as verified by Workforce data and lead to an industry-recognized credential/certificate or postsecondary education.
- CTE Survey program of study. A WVDE-recognized experiential learning program of study. Survey programs of study are made up of survey courses and do not include a state-approved technical assessment. Students taking a survey program of study are not eligible for completer status.

CTE School Types:

- CTE in High School. A high school offering four or fewer career clusters.
- Comprehensive High School. A high school offering career clusters based on the student population. Schools with a population of:
 - 0-400 students must offer a minimum of three career clusters,
 - 401-800 students must offer a minimum of four career clusters, or
 - 801+ students must offer a minimum of five career clusters.
- County Career Center. A career center that services students from the county in which it is located.
- Multi-county Career Center. Two or more contiguous counties joined together to provide programs at a CTE center that serves students from all participating counties. Refer to W. Va. 126CSR71, Policy 3232, Establishment Procedures and Operating Policies for Multi-county Career and Technical Education Centers.
- CTE in Specialized Facilities. A state-approved facility (e.g., West Virginia Schools for the Deaf and Blind, West Virginia Schools of Diversion and Transition) offering students CTE opportunities.

Earn a Degree-Graduate Early (EDGE). An opportunity that provides students with both high school and college technical education credit at the discretion of the postsecondary institution. Such an opportunity must meet both the specified content standards for the secondary offerings and the college course requirements.

Embedded Credit. Definition found in Policy 2510, Glossary of Terms.

Fulfillment Credit. A state-approved CTE course or courses that fulfill a graduation requirement as outlined in Policy 2510.

Industry Recognized Credentials/Certificates. Certifications, licenses, or certificates business and industry recognize as valuable and illustrate an individual's understanding and/or mastery of technical knowledge.

Personal Protective Equipment (PPE). Appropriate industrial-quality protective-ware provided, used, and maintained in a sanitary and reliable condition where it is necessary by reason of hazards processes/environments, chemical and radiological hazards, or mechanical irritants encountered in a manner capable of causing injury/impairment to any part of the body. Types of protective-ware include, but are not limited to, protective clothing, respiratory devices, and protective shields and barriers used to protect eyes, ears, face, head, and extremities. PPE shall be worn by every student, instructor, or any other person in educational programs, laboratories, or shops in the public schools of West Virginia when instructional/observational activities are such that students, instructors, or other persons are exposed to:

- a. flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation;
- b. air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, with the primary objective being the prevention of atmospheric contamination;
- c. powered milling, sawing, turning, shaping, cutting, sanding, grinding, or stamping of any solid materials;
- d. hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes;
- e. foot injuries due to falling or rolling objects, or objects piercing the sole, or when the use of protective footwear will protect the affected individual from an electrical hazard, such as a static-discharge or electric-shock hazard, that remains after the employer takes other necessary protective measures;
- f. potential for injury to the head from falling objects;
- g. heat treatment, tempering, or kiln firing of any metal or other materials;
- h. gas or electric arc welding or other forms of welding processes and injurious radiations or other hazards not enumerated;
- i. caustic or explosive materials and hot liquids or solids; and
- j. occupational noise at or above 85 decibels for an extended period of time (National Institute for Occupational Safety and Health [NIOSH]).

Positive Job Placement. CTE completers who secure a job, continue their education, or join the military.

Safety Assessment. An instructor-developed and administered general and equipment specific safety exam. The general safety exam covers generalities across the spectrum for each program and is a written exam. The equipment specific exam has both a written and performance component for each piece of equipment to which the student has access. EVERY student must pass ALL safety exams with a score of 100 percent before having access to available equipment.

Safety Environment. Requires that equipment and devices shall meet or exceed the minimum requirements under Section 6 of the Occupational Safety and Health Standards Act of 1970, specifically Subpart I of 29-CFR1910 and the appropriate standards published by the American National Standards Institute, the National Fire Prevention Association, and the National Institute for Occupational Safety and Health. The selection, maintenance, and use of this equipment shall be governed as incorporated under Section 6 of the Act (OSHA).

State-Approved CTE Programs List. Identifies the programs of study recognized by the WVDE for accountability and funding.

Supervised Agricultural Experience (SAE). A unique aspect of agricultural education providing students an opportunity to apply knowledge and skills gained in the classroom to authentic work experiences

outside the classroom in Exploratory, Research, Work Placement, and Entrepreneurship areas. Every student enrolled in an agriculture program of study is required to develop an SAE. To complete the program of study, the student must implement an SAE and keep online financial records of all transactions for two years using a state-approved data system. To best accommodate the SAE process, county boards of education may extend teacher contracts to ensure proper student supervision during summer months, thus extending work-based learning opportunities.

Technical Assessment. A business/industry-designed assessment given to CTE students to measure the attainment of career-related technical skills as it relates to their program of study.

West Virginia College- and Career-Readiness Programs of Study/Content Standards. The culminating collection of specific technical skills students should be able to accomplish after completing instruction from a state-approved CTE course, to include the particular category of craft knowledge, abilities, and experience required to perform the necessary tasks within a specific profession.

Work-Based Learning. Provides students with authentic work experience related to technical instruction and academic competencies.

CTE Initiatives

Classroom 2 Career

Work-based learning opportunities categorized by Career Simulation, Career Learning, Career Preparation, and Career Experience to include, but are not limited to, service-learning projects, co-curricular work experience, entrepreneurial experiences, externships, internships, and apprenticeships.

Governor's Workforce Credential

A credential awarded by West Virginia's Governor to CTE completers who achieve a rigorous set of standards within their state-approved CTE program of study and demonstrate exemplary performance within the emerging workforce. Graduating completers must successfully meet the established criteria as referenced in the Guidance Document of Policy 2520.13.

Middle School CTE

Middle school CTE allows students to navigate a variety of career-focused programs through engaging, hands-on activities. The WVDE offers three initiatives that allow students to explore CTE in their classroom: Discover Your Future, PLTW Gateway, and Empowerment Collaborative.

Simulated Workplace

An instructional environment that creates a high-quality workplace culture, providing students with opportunities to learn business/industry processes and procedures.

All state-approved secondary CTE programs require a shift to a workplace environment exposing students enrolled in the first and second program courses and fully implementing the following required protocols in the third and fourth program courses.

- Student Led Companies
- Application/Interview Structure
- Formal Attendance System
- Drug-Free Work Zone
- 6S Environments
- Safe Work Areas
- Workplace Teams
- Project Based Learning/Student Engagement
- Company Name and Handbook
- Company Meetings
- Onsite Business Reviews
- Accountability (Data review, report, and technical assessments.)

CTE Middle School Courses

CTE Exploratory Courses

0159	Case AgXplore
0700	Exploring Health Professions
0970	Future Careers
0971	Regional Careers
0972	Discover Your Future
0975	Exploring Touring in West Virginia
1893	Gateway Automation and Robotics
1894	Gateway Design and Modeling
1895	Gateway Energy and Environment
1896	Gateway Flight and Space
1897	Gateway Green Architecture
1898	Gateway Magic of Electrons
1899	Gateway Science of Technology
1900	Gateway Medical Detectives
1918	Gateway App Creators
1920	Gateway Computer Science for Innovators and Makers
2406	Middle Exploring Technology 6
2407	Middle Exploring Technology 7
2408	Middle Exploring Technology 8
7630	Career Exploration

CTE courses that 8th grade students may take for high school graduation credit.

0101	Introduction to Agriculture Food and Natural Resources
0766	Human Body Systems
0903	Parenting and Strong Families
0954	Foundational Food Preparation
1211	Introduction to Tourism
1411	Business Computer Applications 1
1441	Keyboarding
1700	Technical Computer Application 1
2458	Engineering Essentials
2811	Basic Computer
2816	Basic Programming

CTE High School Enrichment Courses

CTE High School Enrichment Courses

0133	Agricultural Cooperative Education
0146	Leadership Development
0201	Grounds Maintenance
0234	Agricultural Experience Program 2
0434	Sports, Entertainment, and Recreation Marketing
0520	Work-Based Integration and Transition 1
0522	Ready to Work 1
0523	Entrepreneurial Preparedness
0524	Ready to Work 2
0525	Classroom 2 Career
0615	Certified Nursing Assistant
0617	Certified Patient Care Technician
0710	Employment in Health Occupation
0720	ECG/Phlebotomy
0725	Understanding Human Behavior
0730	Health Science Clinical Experience
0736	Medical Assistant Administrative Procedures 2
0739	Nutrition and Wellness
0742	Dental Assistant Practices
0745	Dental Assisting Clinical Mentoring
0747	Dental Specialties
0749	Supervised Dental Clinical Experience
0929	Learning for Independence Family and Employment
0950	Nutrition and Foods Foundation
0954	Foundational Food Preparation
0973	Practical Know-How
0974	Career Connection
1016	Food Service Management Practices
1017	Culinary Nutrition and the Menu
1018	Baking and Pastry Applications
1032	Principles of Investigation
1055	Public Safety and Wellness
1060	Addition and Prevention
1062	JROTC 5
1063	JROTC 6
1064	JROTC Internship
1116	Event Production Operations
1212	Event and Project Planning and Management
1221	Leisure Behavior
1222	Introduction to Recreation and Leisure
1441	Keyboarding
1451	Personal Finance
1472	Principles of Entrepreneurship
1518	Fundamentals of Media Writings
1519	Information Graphics

CTE High School Enrichment Courses (Continued)

1601	Basic Control Circuits
1602	Air Conditioning Applications
1603	Domestic Refrigeration
1604	Fossil Fuel Heating Systems
1607	Heating Systems
1608	Commercial Air Conditioning
1609	Ductwork Fabrication
1661	Blueprint Reading
1672	Detailing and Interior Parts
1673	Mechanical and Electrical Components
1674	Refinishing Techniques
1676	Custom Finishing Processes
1692	PC Essentials Hardware
1706	Imaging for the Web
1718	Introduction to Computer Aided Drafting
1722	Piping Systems
1723	Civil Drafting
1726	Structural Steel Drafting
1728	Advanced Computer Aided Drafting
1742	Diesel Equipment Electrical Systems
1743	Diesel Engine Tune-Up and Troubleshooting
1745	Diesel Preventative Maintenance and Inspection
1749	Diesel Truck Chassis Concepts
1763	Fundamentals of Electricity
1803	Basic Plumbing and Electricity
1805	Fundamentals of Facilities Maintenance
1820	Applications in Commercial Construction
1821	Concrete Finishing
1822	Blueprint Reading for Construction
1823	Finishing Carpentry
1824	Framing Practices and Applications
1828	Building Construction Applications
1829	Masonry and Plumbing
1853	Fundamentals of Computer Graphics
1854	Computer Graphics
1855	Fundamentals of Desktop Publishing
1856	Desktop Publishing/Page Layout
1901	Engine Machining
1902	Machine Tool Technology
1904	Integrated Machine Processes
1906	Machining Processes and Applications
1908	CNC Machining
1911	Block and Rock Laying
1912	Advanced Masonry Procedures
1913	Bricklaying
1914	Bricklaying Applications
1916	Decorative Masonry Work

CTE High School Enrichment Courses (Continued)

1917	Foundation and Footings
1919	Fundamentals of Masonry
1970	Power Equipment Systems Applications
1972	Recreational Applications
1973	Compact Diesels
1974	Generators
1982	Ornamental Metalwork
1983	Blueprint Reading and Metallurgy
1987	Gas Metal Arc Welding
1989	Gas Tungsten Arc Welding
2004	Agriculture Blueprint/CAD
2006	Agriculture Intro to Oxy-Acetylene/Arc Welding
2124	Cabinet Construction
2145	Smoldering and Flaring Copper Pipe
2146	Gas Piping
2148	Drains, Waste, and Vent Systems
2149	Plumbing Fixtures
2202	Fire Science Technology
2207	Telecommunicator
2208	Auto Extrication
2209	Drive/Pump Operator
7664	Touring West Virginia

CTE High School Programs of Study

Agriculture, Food, and Natural Resources Career Cluster™ (AG)	
WV CTE Program of Study:	AG0120 Agribusiness Systems
Primary Courses:	<p><i>Must complete one of the following prerequisite courses.</i></p> <p>0101 Introduction to Agriculture, Food, and Natural Resources 0161 CASE Intro to Agriculture, Food, and Natural Resources</p> <p><i>Must enroll in the following two courses.</i></p> <p>0102 The Science of Agriculture 0134 Agricultural Experience Program <i>Students shall receive one full credit based on completion of approved SAE and submission of approved documentation. Two years must be completed to meet the requirement. Refer to the Guidelines to Awarding SAE Credit document for more information.</i></p>
Specialization Courses:	<p><i>Must select one of the following courses.</i></p> <p>0110 Agriculture Entrepreneurship 0111 Food Science Technology 0112 Fundamentals of Agriculture Mechanics 0132 Agricultural Biotechnology 0136 Advanced Principles of Agriculture 0139 Fundamentals of Animal Processing 0140 Animal Production and Management 0162 CASE Principles of AG Science – Animal 0163 CASE Agriculture Business, Research, and Development 0164 CASE Animal and Plant Biotechnology 0165 CASE Food Science and Safety 0166 CASE Principles of AG Science – Plant 0183 Forest Management 0200 Natural Resource Management 0212 Horticulture</p>
WV CTE Program of Study:	AG0230 Animal Processing
Primary Courses:	<p><i>Must complete one of the following prerequisite courses.</i></p> <p>0101 Introduction to Agriculture, Food, and Natural Resources 0161 CASE Intro to Agriculture, Food, and Natural Resources</p> <p><i>Must enroll in the following two courses.</i></p> <p>0139 Fundamentals of Animal Processing 0134 Agricultural Experience Program <i>Students shall receive one full credit based on completion of approved SAE and submission of approved documentation. Two years must be completed to meet the requirement. Refer to the Guidelines to Awarding SAE Credit document for more information.</i></p>
Specialization Courses:	<p><i>Must select one course.</i></p> <p>0151 Animal Processing – Retail 0160 Animal Processing – Plant</p>

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WV CTE Program of Study:	AG0220 Animal Systems
Primary Courses:	<p><i>Must complete one of the following prerequisite courses.</i></p> <p>0101 Introduction to Agriculture, Food, and Natural Resources 0161 CASE Intro to Agriculture, Food, and Natural Resources</p> <p><i>Must enroll in one of the following courses.</i></p> <p>0140 Animal Production and Management 0162 CASE Principles of Agriculture Science - Animal</p> <p><i>Must enroll in the following course.</i></p> <p>0134 Agricultural Experience Program <i>Students shall receive one full credit based on completion of approved SAE and submission of approved documentation. Two years must be completed to meet the requirement. Refer to the Guidelines to Awarding SAE Credit document for more information.</i></p>
Specialization Courses:	<p><i>Must select one course.</i></p> <p>0141 Aquaculture 0149 Companion Animal Care 0164 CASE Animal and Plant Biotechnology 0165 CASE Food Science and Safety 0170 Introduction to Pet Grooming, Boarding, and Obedience 0230 Livestock Production 2007 Equine Science</p>
WV CTE Program of Study	AG0130 Forest Industry
Primary Courses:	<p>0812 Fundamentals of Forestry 0183 Forest Management 0184 Timber Management 0185 Advanced Principles of Forestry</p>
WV CTE Program of Study	AG0170 Natural Resources Management
Primary Courses:	<p><i>Must complete one of the following prerequisite courses.</i></p> <p>0101 Introduction to Agriculture, Food, and Natural Resources 0161 CASE Intro to Agriculture, Food, and Natural Resources</p> <p><i>Must enroll in the following courses.</i></p> <p>0200 Natural Resources Management 0134 Agricultural Experience Program <i>Students shall receive one full credit based on completion of approved SAE and submission of approved documentation. Two years must be completed to meet the requirement. Refer to the Guidelines to Awarding SAE Credit document for more information.</i></p>
Specialization Courses:	<p><i>Must select one course.</i></p> <p>0183 Forest Management 0190 Fish and Wildlife Management 2494 Land Management and Surveying</p>
WV CTE Program of Study:	AG0223 Pet Grooming
Primary Courses:	<p>0170 Introduction to Pet Grooming, Boarding, and Obedience 0173 Pet Grooming, Boarding, and Obedience Entrepreneurship 0171 Pet Grooming and Understanding Personalities</p>

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Specialization Courses:	<p><i>Must select one course.</i></p> <p>1180 Advanced Pet Grooming and Understanding Personalities 1181 Pet Boarding and Obedience</p>
WV CTE Program of Study:	AG0210 Plant Systems
Primary Courses:	<p><i>Must complete one of the following prerequisite courses.</i></p> <p>0101 Introduction to Agriculture, Food, and Natural Resources 0161 CASE Intro to Agriculture, Food, and Natural Resources</p> <p><i>Must enroll in one of the following courses.</i></p> <p>0212 Horticulture 0166 CASE Principles of Agricultural Science – Plant</p> <p><i>Must enroll in the following course.</i></p> <p>0134 Agricultural Experience Program <i>Students shall receive one full credit based on completion of approved SAE and submission of approved documentation. Two years must be completed to meet the requirement. Refer to the Guidelines to Awarding SAE Credit document for more information.</i></p>
Specialization Courses:	<p><i>Must select one course.</i></p> <p>0164 CASE Animal and Plant Biotechnology 0165 CASE Food Science and Safety 0213 Floriculture 0214 Greenhouse Production and Management 0220 Fruit and Vegetable Production 0240 Turf and Landscape Systems</p>
WV CTE Program of Study:	AG0110 Power, Structural and Technical Systems
Primary Courses:	<p><i>Must complete one of the following prerequisite courses.</i></p> <p>0101 Introduction to Agriculture, Food, and Natural Resources 0161 CASE Intro to Agriculture, Food, and Natural Resources</p> <p><i>Must enroll in the following courses.</i></p> <p>0112 Fundamentals of Agriculture Mechanics 0134 Agricultural Experience Program <i>Students shall receive one full credit based on completion of approved SAE and submission of approved documentation. Two years must be completed to meet the requirement. Refer to the Guidelines to Awarding SAE Credit document for more information.</i></p>
Specialization Courses:	<p><i>Must select one course.</i></p> <p>0113 Agriculture Structures 0114 Agriculture Equipment and Repair 0115 Agriculture Engineering 2002 Agriculture Small Engine Repairs</p>

Architecture and Construction Career Cluster™ (AR)

WVDE requirement to be eligible to sit for the Electrical Journeyman License.

- Attain an overall grade of “B” or better in the four required state-approved CTE *Electrical Technician* program of study core courses **AND** four specialized courses used to meet the 1080-hours needed to sit for the Journeyman License as stated in the *Electrical Licensing Rules* from the Office of the West Virginia State Fire Marshal;
- Attain a verified school attendance record of no more than six-days absent in a one year (1080-hour)

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<ul style="list-style-type: none"> program or 12-days absent in a two year (1080-hour) program; Earn the OSHA 10 certification; Pass a minimum of two documented drug screenings; AND Score at or above the Workforce Entry-Level cut score on the industry-recognized written AND satisfactorily pass a school-identified performance assessment. 	
WV CTE Program of Study:	AR1800 Building Maintenance and Operations
Primary Courses:	1774 Building Maintenance and Operations 1 1775 Building Maintenance and Operations 2 1776 Building Maintenance and Operations 3 1777 Building Maintenance and Operations 4
WV CTE Program of Study:	AR1820 Carpentry
Primary Courses:	1842 Carpentry 1 1843 Carpentry 2 1844 Carpentry 3 1845 Carpentry 4
WV CTE Program of Study:	AR1720 Computer Aided Drafting and Design
Primary Courses:	1729 Fundamentals of Drafting 1727 Drafting Techniques 1725 Mechanical Drafting 1721 Architectural Drafting
WV CTE Program of Study:	AR1760 Electrical Technician
Primary Courses:	1756 Electrical Trades 1 1757 Electrical Trades 2 1758 Electrical Trades 3 1759 Electrical Trades 4
Journeyman Required Courses:	<i>Must complete at least four of the courses listed below to meet the 1080-hour requirement and be recommended to sit for the Journeyman Electrician License exam.</i> 1762 Blueprint Reading for Electricians 1765 Industrial and Commercial Wiring 1766 Integrated Electrical Lab 1767 National Electrical Code 1769 Residential Wiring 1771 Rotating Devices and Control Circuitry
WV CTE Program of Study:	AR1600 HVAC Technicians
Primary Courses:	1752 HVAC 1 1753 HVAC 2 1754 HVAC 3 1755 HVAC 4
WV CTE Program of Study:	AR1910 Masonry
Primary Courses:	1846 Masonry 1 1847 Masonry 2 1848 Masonry 3 1849 Masonry 4
WV CTE Program of Study:	AR2140 Plumbing
Primary Courses:	2081 Plumbing 1 2082 Plumbing 2

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	2083 Plumbing 3
	2084 Plumbing 4

Arts, A/V Technology, and Communications Career Cluster™ (AV)	
WV CTE Program of Study:	AV1680 Broadcasting Technology
Primary Courses:	1681 Fundamentals of Broadcasting 1683 Radio Broadcasting Presentations 1685 Television Production Applications
Specialized Courses:	<i>Must select one course.</i> 1687 Broadcast Operations 1689 Producing Live TV 1684 Video Editing
WV CTE Program of Study:	AV1840 Graphic Design and Illustration
Primary Courses:	1851 Fundamentals of Illustration 1861 Illustration
Specialized Courses:	<i>Must select a specialization program and complete both courses.</i> Graphic Design 1857 Fundamentals of Graphic Design 1859 Graphic Design Applications Illustration 3221 AP Art History 3222 AP Drawing
WV CTE Program of Study:	AV1684 Multimedia Publishing
Primary Courses:	1514 Introduction to Visual Communication 1515 Digital Photography 1516 Videography 1517 Cross-media Publishing
WV CTE Program of Study:	AV1690 Social Journalism
Primary Courses	<i>Must complete the following courses.</i> 1518 Fundamentals of Media Writing 1517 Cross-Media Publishing <i>Must enroll in one of the following courses.</i> 4011 Dual Credit English Language Arts 11 4041 AP English Language and Composition <i>Must enroll in one of the following courses.</i> 4012 Dual Credit English Language Arts 12 4042 AP English Literature and Composition

Business Management and Administration Career Cluster™ (BM)	
Note: *Business Computer Applications 1 (1411) is a prerequisite for Business Computer Communications (1422).	
WV CTE Program of Study:	BM0510 Career and Work Skills Training (CWST)
Primary Courses:	0511 Career and Work Skills Training 1 0512 Career and Work Skills Training 2 0513 CWST Work Experience 1 0514 CWST Work Experience 2

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WV CTE Program of Study:	BM1965 Business Enterprise
Primary Courses:	1411 Business Computer Application 1
Specialized Courses:	<i>Must select three courses.</i> 1422 Business Computer Communications 1417 Business Law and Ethics 1439 Business and Marketing Essentials 1449 Office Procedures 1474 Entrepreneurship 1 1504 Dual Credit Business Economics
WV CTE Program of Study:	BM1960 E-Commerce
Primary Courses:	1478 E-Commerce 1 1479 E-Commerce 2 1480 E-Commerce 3 1481 E-Commerce 4
WV CTE Program of Study:	BM1950 Entrepreneurship and Innovation
Primary Courses:	1474 Entrepreneurship 1 1475 Entrepreneurship 2 1476 Entrepreneurship 3 1477 Entrepreneurship 4

Education and Training Career Cluster™ (ED)

Note: *Early Learning Child Development (13211) and Early Learning Special Needs Inclusion (1322) are prerequisites for Early Learning Language and Literacy (1323) and Early Learning Numeracy (1324).

WV CTE Program of Study:	ED1320 Early Childhood Classroom Assistant Teacher (ECCAT)
Primary Courses:	1321 Early Learning Child Development 1322 Early Learning Special Needs Inclusions 1323 Early Learning Language and Literacy* 1324 Early Learning Numeracy*

Finance Career Cluster™ (FI)

WV CTE Program of Study:	FI1420 Financial Management
Primary Course:	1401 Accounting Principles 1
Specialized Courses:	<i>Must select three courses.</i> 1403 Accounting Principles 2 1436 Dual Credit Financial Markets 1464 E-Commerce and Financials 1470 Introduction to Finance 1471 Business Finance 7039 AP Microeconomics

Government and Public Administration Career Cluster™ (GO)

WV CTE Program of Study:	GO1070 JROTC
	1065 JROTC 1 1066 JROTC 2 1080 JROTC 3 1081 JROTC 4

Health Science Career Cluster™ (HE)	
Notes:	
<ul style="list-style-type: none"> The WVDE recommends that each course must be passed with 80 percent or higher to move on to the next course. Each program of study should have its own grading policy listed in its handbook. <i>Health Science Clinical Experience (0730)</i> may be scheduled in conjunction with 0756, 0772, 0732, 0733, 0789, 0790, 0810, 0825, and 0843 to create a two-block credit. 	
* <i>Foundations of Health Science (0711)</i> is a prerequisite for <i>Advanced Principles of Health Science (0715)</i> . These two courses provide the introductory core for all Health Science programs of study.	
** These courses required 100 percent drug testing prior to entering the clinical experiences.	
WV CTE Program of Study:	HE1010 Advanced Medical Preparedness
Primary Courses:	0711 Foundations of Health Science* 0715 Advanced Principles of Health Science*
Specialized Courses:	<i>Must select two courses.</i> 0716 Body Structures and Functions 0721 Medical Terminology 0734 Introduction to Pharmacology 0850 Medical Math
WV CTE Program of Study:	HE0715 Allied Health Science
Primary Courses:	0711 Foundations of Health Science* 0715 Advanced Principles of Health Science*
Specialized Courses:	<i>Must select a specialization program and complete both courses.</i> Medical Laboratory Technicians 0755 Medical Laboratory and Diagnostic Procedures 0756 Medical Lab Diagnostic Procedures and Applications** Emergency Services 0792 Emergency Services 1 0732 Emergency Services 2** Medical Assisting 0737 Medical Assistant Laboratory and Diagnostic Procedures 0733 Medical Assistance Clinical** Clinical Diagnostics 0810 Electrocardiograph Technician 0825 Phlebotomy Skills** PTCP Prep 0771 PTCB Preparation 0772 PTCB Clinical Applications**
WV CTE Program of Study:	HE0780 Biomedical Science
Primary Courses:	0727 Principles of Biomedical Science 0766 Human Body Systems 0780 Medical Interventions 0795 Biomedical Innovation
WV CTE Program of Study:	HE0700 Dental Assisting
Primary Courses:	0740 Dental Assisting 1 0748 Dental Assisting 2 0746 Dental Science 0743 Dental Assisting Clinical**

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WV CTE Program of Study:	HE0800 Sports Medicine
Primary Courses:	0840 Foundations of Sports Medicine 0841 Advanced Principles of Sports Medicine 0842 Athletic Injury Recognition and Prevention 0843 Practical Applications of Sports Medicine**
WV CTE Program of Study:	HE0723 Therapeutic Services
Primary Courses:	0711 Foundations of Health Science* 0715 Advanced Principles of Health Science* 0789 Clinical Specialties 1** (<i>Select one specialty below.</i>) 0790 Clinical Specialties 2** (<i>Select one specialty below.</i>)
Specialized Courses:	<i>Must select a specialty.</i> <ul style="list-style-type: none"> • Health Occupations • Certified Nursing Assistant • Certified ECG Technician • Certified Health Unit Coordinator • Certified Patient Care Technician • Certified Phlebotomy Technician • Community Emergency Response Team • Dental Aide • Dietary Aide • Direct Care Workers • Electronic Health Record Specialist • Environmental Services • Orientation to Practice Nursing • Laundry Aide • Physical Therapy Aide • Pre-Pharmacy Technician • Imagery Aide

Hospitality and Tourism Career Cluster™ (HO)	
WV CTE Program of Study:	HO1015 Baking and Pastry
Primary Courses:	1980 Baking and Pastry Foundations 1024 Baking and Pastry 1 1025 Baking and Pastry 2 1026 Baking and Pastry Advanced
WV CTE Program of Study:	HO1010 ProStart Restaurant Management
Primary Courses:	1013 Restaurant and Culinary Foundations 1014 Restaurant Management Essentials 1019 Advanced Principles in Food Production 1020 Restaurant Professional
WV CTE Program of Study:	HO1220 Tourism
Primary Courses:	1211 Introduction to Tourism 7663 Travel West Virginia
Specialized Courses:	<i>Must select two courses.</i> 0437 Tourism Marketing

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	<p>0438 Adventure Tourism</p> <p>1086 Outdoor Education</p> <p>1125 Parks and Recreation Program Management</p> <p>1210 Tourism Internship</p> <p>1240 Tourism Leadership</p> <p>1241 Tourism Operations</p> <p>1242 Agritourism</p>
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Human Services Career Cluster™ (HU)	
Note: * <i>Social Work Advocacy (0909)</i> is a pre-requisite for <i>Legal and Practical Applications (0910)</i> .	
WV CTE Program of Study:	HU2311 Pre-Cosmetology
Primary Course:	1737 Barbering and Cosmetology Foundations
Specialized Courses:	<p><i>Must select a specialization program and complete all courses.</i></p> <p>Aesthetics</p> <p>1732 Skin Sciences</p> <p>1731 Aesthetics Science</p> <p>1714 General Aesthetics 1</p> <p>Nail Technology</p> <p>1716 Nail Technology Science and Procedures</p> <p>1717 Art of Nail Technology</p> <p>1719 Nail Technology Clinical Experiences</p> <p>Hair Stylist</p> <p>1734 Cosmetology Professional 1</p> <p>1735 Cosmetology Professional 2</p> <p>1736 Cosmetology Professional Advanced</p>
Licensing Required Courses:	<p><i>Select the four courses listed below to complete the minimum requirements for Hair Stylist by the Board of Barbers and Cosmetologists:</i></p> <p>1738 Cosmetology Science 1</p> <p>1740 Cosmetology Science 2</p> <p>1730 Cosmetology Chemical 1</p> <p>1750 Cosmetology Chemical 2</p> <p><i>Select the course listed below to complete the minimum requirements for Aesthetics by the Board of Barbers and Cosmetologists.</i></p> <p>1739 General Aesthetics 2</p>
WV CTE Program of Study:	HU2335 School Service Personnel
Primary Courses:	<p>0310 School Service Personnel 1</p> <p>0311 School Service Personnel 2</p> <p>0312 School Service Personnel Special Topics</p> <p>0313 School Service Personnel Internship</p>
WV CTE Program of Study:	HU1038 Sign Language Translator
Primary Courses:	<p>5691 American Sign Language 1</p> <p>5692 American Sign Language 2</p> <p>0304 Sign Language Translator 1</p> <p>0305 Sign Language Translator 2</p>
WV CTE Program of Study:	HU2330 Social Services
Primary Courses:	0903 Parenting and Strong Families

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	0928 Fundamentals of Social Services 0909 Social Work Advocacy 0910 Legal and Practical Applications*
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Information Technology Career Cluster™ (IT)	
WV CTE Program of Study:	IT1640 CISCO Networking
Primary Courses:	1654 CCNA1 1658 CCNA2 1659 CCNA3 1660 CCNA4
WV CTE Program of Study:	IT1470 Coding, AI and Game Design
Primary Courses:	1456 Coding, App and Game Design 1 1457 Coding, App and Game Design 2
Specialized Courses:	<i>Must select two courses.</i> 1431 Digital Imaging / Multimedia 1 1432 Digital Imaging / Multimedia 2 1492 Concepts of Gaming 2811 Basic Computer 2816 Basic Programming 2826 Computer and Information Science 2831 Computer Science / Programming 2846 General Computer Applications 2856 Object-Oriented Languages 2872 Computer Science in the Modern World 2875 Foundations of Programming Part 1
WV CTE Program of Study:	IT2215 Computer Science
Primary Courses:	1408 Computer Science Essentials 2806 AP Computer Science Principles 2801 AP Computer Science Applications 1418 Cybersecurity
WV CTE Program of Study:	IT1680 Computer Systems Repair Technology
Primary Courses:	1664 CompTIA A+ Core 1 1665 CompTIA A+ Core 2 1694 Networking+
Specialized Courses:	<i>Must select one course.</i> 1598 Intro to Network Cabling-Fiber Optic Based Systems 1695 Server+ 1696 Security+ 1698 Linux Essentials
WV CTE Program of Study:	IT1450 Information Management
Primary Courses:	1700 Technical Computer Applications 1 1709 Technical Computer Applications 2
Specialized Courses:	<i>Must select two courses.</i> 1429 Desktop Publishing 1431 Digital Imaging / Multimedia 1

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	1705 Fundamentals of Computer Science
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WV CTE Program of Study:	IT1445 Virtual Simulation and Game Development
Primary Courses:	1462 Digital Imaging / Multimedia Virtual
	1455 Web Page Publishing
	1465 Game Design 1 Virtual
	1466 Game Design 2 Virtual

Law, Public Safety, Corrections, and Security Career Cluster™ (LA)

WV CTE Program of Study:	LA2200 Emergency and Firefighting Management Services
Primary Courses:	2203 Fire Fighting 1
	2205 Fire Fighting 2
Specialized Courses:	<i>Must select a specialization program and complete both courses.</i>
	Industrial Fire Safety
	2250 Industrial Incident Command
	2251 Industrial Hazardous Material
	Emergency Management
	2248 Emergency Medical Preparedness 1
	2249 Emergency Medical Preparedness 2
WV CTE Program of Study:	LA1020 Law and Public Safety
Primary Courses:	1225 Fundamentals of Public Safety Leadership
	1226 Ethical Issues in Public Safety
	1039 Practical Applications of Public Safety
Specialized Courses:	<i>Must select one course.</i>
	1031 Seminar in Courts and Legal Systems
	1034 Seminar in Corrections
	1035 Seminar in Law Enforcement
	1037 Strategic Security and Legal System
	6044 Forensic Science

Manufacturing Career Cluster™ (MA)

WV CTE Program of Study:	MA1601 Aviation Maintenance Technician
Primary Courses:	2012 Aviation Fundamentals 1
	2013 Aviation Fundamentals 2
	2014 Airframe Systems 1
	2015 Airframe Systems 2
WV CTE Program of Study:	MA1870 Industrial Equipment Maintenance
Primary Courses:	1873 Fundamentals of Industrial Equipment Maintenance
	1875 Hydraulic and Pneumatic Systems
	1871 Electrical Maintenance
	1985 Fundamentals of Welding Technology
WV CTE Program of Study:	MA1650 Industrial Robotics
Primary Courses:	1898 FANUC Operator 1
	1890 FANUC Operator 2
	1929 FANUC Technician 1
	1930 FANUC Technician 2

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WV CTE Program of Study:	MA1900 Machine Tool Technology
Primary Courses:	1903 Fundamentals of Machine Tool Technology 1905 Fundamentals of Machine Processes 1907 Machine Tool Operations 1909 Metal Trades Processes and Applications
WV CTE Program of Study:	MA1910 Manufacturing: Production and Design
Primary Courses:	1579 Production and Design Concepts 1580 Mechanical Drive and Quality Control 1581 Special Topics in Production and Design 1582 Manufacturing Internship
WV CTE Program of Study:	MA2120 Millwork and Cabinetmaking
Primary Courses:	2126 Millwork and Cabinetmaking 1 2127 Millwork and Cabinetmaking 2 2128 Millwork and Cabinetmaking 3 2129 Millwork and Cabinetmaking 4
WV CTE Program of Study:	MA1630 Robotics
Primary Courses:	1866 Robotics 1 1867 Robotics 2
Specialized Courses:	<i>Must select a specialization program and complete both courses.</i> Robotics 1868 Robotics 3 1869 Robotics 4 Drones 1887 FAA 107 Ground Operations 1888 FAA 107 Flight Operations
WV CTE Program of Study:	MA1980 Welding
Primary Courses:	1862 Welding 1 1863 Welding 2 1864 Welding 3 1865 Welding 4

Marketing Career Cluster™ (MK)

WV CTE Program of Study:	MK0420 Marketing Management
Primary Courses:	0422 Marketing Principles 0425 Marketing Applications 0426 Cross-Media Marketing 0428 Marketing Work Experience/Internship

Science, Technology, Engineering, and Mathematics Career Cluster™ (ST)

Note: *New Age Engineering 1 (2459) is a prerequisite for New Age Engineering 2 (2460).

WV CTE Program of Study:	ST220 Aerospace Engineering
Primary Courses:	1540 AC Aerospace Engineering 1 1541 AC Aerospace Engineering 2 1542 AC Aerospace Engineering 3 1543 AC Aerospace Engineering 4

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WV CTE Program of Study:	ST2175 Energy and Power
Primary Courses:	2485 AC Energy, Power, and Engineered System 1 2486 AC Energy, Power, and Engineered System 2 2487 AC Energy, Power, and Engineered System 3 2488 AC Energy, Power, and Engineered System 4

WV CTE Program of Study:	ST2460 Pre-Engineering
Primary Courses:	<i>Must select one course.</i> 2458 Engineering Essentials 2461 Introduction to Engineering Design
Specialized Courses:	<i>Must select three courses.</i> 2457 Engineering Capstone 2459 New Age Engineering 1 2460 New Age Engineering 2* 2462 Digital Electronics 2463 Principles of Engineering 2464 Engineering Design and Development 2465 Computer Integrated Manufacturing 2466 Civil Engineering and Architecture 2468 Aerospace Engineering 2469 Environmental Sustainability 2806 AP Computer Science Principles

Transportation, Distribution, and Logistics Career Cluster™ (TR)	
WV CTE Program of Study:	TR1620 Automotive Technology
Primary Courses:	1631 Automotive Technology Maintenance and Light Repair (MLR) 1 1623 Automotive Technology MLR 2 1625 Automotive Technology MLR 3 1637 Automotive Technology MLR 4
Specialized Courses:	<i>Select the four courses listed below to complete the Automotive Service Technician (AST).</i> 1629 Automotive Technology AST 1 1633 Automotive Technology AST 2 1635 Automotive Technology AST 3 1627 Automotive Technology AST 4
WV CTE Program of Study:	TR1670 Collision Repair Technology
Primary Courses:	1671 Fundamentals of Collision Repair Technology 1675 Non-Structural Analysis and Damage Repair 1677 Structural Analysis and Damage Repair 1679 Surface Preparation and Refinishing
WV CTE Program of Study:	TR1740 Diesel Equipment Technology
Primary Courses:	1751 Fundamentals of Diesel Equipment Technology 1744 Electronic Engine Control 1741 Diesel Engine Components 1747 Diesel Support Systems

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WV CTE Program of Study:	TR2215 Global Logistics and Supply Chain Management
Primary Courses:	1555 AC Global Logistics and Supply Chain Management 1 1556 AC Global Logistics and Supply Chain Management 2 1567 AC Global Logistics and Supply Chain Management 3 1558 AC Global Logistics and Supply Chain Management 4

WV CTE Program of Study:	TR1960 Power Equipment Systems
Primary Courses:	1962 Fundamentals of Power Equipment I 1964 Fundamentals of Power Equipment II 1966 Power Equipment Service I 1968 Power Equipment Service II

West Virginia Career Cluster (WV)	
Individual Work Ready Competencies (IWRC) Notes:	
<ul style="list-style-type: none"> • The IWRC pathway is designed to provide some students with an IEP who are pursuing a standards-based high school diploma the opportunity to gain occupation ready skills related to their desired CTE career programs of study during high school. • An IWRC student must enroll in the four CTE program of study core courses as detailed in this policy and plan to enter the workforce directly after high school with OTJ training, apprenticeship, or continued technical training as an adult. • The Personalized Education Plan (PEP) and the student’s IEP must be updated to reflect the change from state-approved CTE program of study to state-approved IWRC. • The IEP for the student describes any specially designed instruction, support, or accommodations necessary for student success. 	
WV CTE Program of Study:	WV5502 Individual Work Ready Competencies (IWRC)
Primary Courses:	Eligibility for participation in IWRC will be based on the following: <ul style="list-style-type: none"> • the student shall have a current IEP and be pursuing a standard diploma, • the student shall be provided accommodations and/or supports as indicated in the IEP, • the student must pass ALL safety exams with a score of 100 percent, and • the student is unable to master ALL required standards of the CTE program of study.
Program Evaluation:	The student will: <ul style="list-style-type: none"> • follow the state-approved CTE program of study • follow the IWRC standards established by the Student Assistance Team (SAT), and • complete the IWRC technical assessment for the CTE program of study with accommodations or supports as indicated in the IEP.
Recommended Student Certificate(s):	The IWRC student will be eligible to test for all industry certifications upon meeting qualification.

Advanced Career Education (ACE) Programs of Study

The WVDE endorses institutions that choose to offer ACE programs that provide career and technical training programs to adult postsecondary students. These institutions are governed by their local county board of education or multi-county administrative council. The institution shall maintain appropriate written policies and procedures as they pertain to the operation of postsecondary schools and programs.

All programmatic decisions such as program offerings, program length, and program modes of delivery are at the discretion of the local board of education or multi-county administrative council. The institution shall be responsible for submitting all state and federal reports to remain compliant and in good standing with accountability processes, including, but not limited to enrollment; periods of enrollment; academic progress; attendance; awarded certifications/credentials; grades; graduates/completers; community partnerships and articulation agreements; placement; licensure; tuition and additional fees; and revenue and operational expenses.

Institutions may be accredited by an agency recognized by the U.S. Department of Education (ED) and may participate in financial aid programs. The WVDE may provide institutional verification letters stating that an institution is compliant and in good standing with the state accountability processes. The local board of education or multi-county administrative council will issue verification letters of programmatic approval. Practical Nursing is the only program of study that requires national accreditation, per W. Va. Code §30-7A-8.

Programming

The WVDE provides a list of state-approved training programs for funding and accountability purposes. Institutions may choose to offer additional local training programs outside of the WVDE-approved list, that are deemed a local workforce need.

All postsecondary programs (state-approved or local) should include: program of study title and course plan of study/course sequence; the number of clock/credit hours of instruction to be provided; tuition, fees, and other program costs; course standards and instructional outcomes; national certifications/credentials to be earned with disclosure of any waiting periods or work requirements to sit for the exam; articulation agreements available; student performance expectations and graduation requirements; admission and academic requirements for enrollment; and definitive program start and end dates.

WVDE state-approved training programs for funding and accountability purposes include:

Program of Study Number	Program of Study Name
HU9205	American Sign Language (ASL) Translator
TR9801	Automotive Technician
MA9710	Aviation Maintenance Technology
HU9501	Barbering
HE9308	Certified Nursing Assistant
MA9704	Certified Welder
TR9803	Commercial Driving
HU9505	Cosmetology

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HO9401	Culinary Arts
HE9306	Dental Assisting
TR9802	Diesel Mechanic
ED9901	ECCAT
AR9101	Electrical Technician
HE9302	Electrocardiograph Technician
AR9107	Heavy Equipment Operator
AR9105	HVAC Technician
MA9705	Manufacturing Robotics
HE9314	Massage Therapy
HE9307	Medical Assisting
HE9301	Phlebotomy Technician
AR9103	Plumber in Training
HE9311	Practical Nursing
HE9312	Respiratory Therapy
HE9315	Sterile Processing Technician
HE9313	Surgical Technology
HE9305	Veterinary Technology