

West Virginia Career and Technical Education Endorsement and Testing Manual

Effective December 16, 2020

A listing of all WVBE-required licensure exams and industry credentials required for educator certification and for completion of West Virginia Board of Education-approved Career and Technical Education programs leading to West Virginia licensure. This Manual is maintained on the WVDE website. When tests, scores, or industry credentials listed in the manual are changed, the validity period for the previously listed test, score, and/or industry credential shall be one year from the effective date of the new test, score, or industry credential. Exception: tests, scores, or industry credentials shall remain valid for twelve months after completion of an approved program for licensure where the applicant was continuously enrolled even if the test, score, or industry credential has changed.

REQUIRED TESTS, INDUSTRY CREDENTIALS AND WORK EXPERIENCE REQUIRED FOR ISSUANCE OF THE CAREER/TECHNICAL PERMIT AND CAREER/TECHNICAL CERTIFICATE^{1,2,3,4,5}

TABLE 1: REQUIRED BASIC SKILLS TESTS

<i>California Achievement Tests Required for Career/Technical Educators Required Score</i>		
	<i>Career/Technical Permit</i>	<i>Career Technical Certificate</i>
<i>Reading</i>	<i>771</i>	<i>777</i>
<i>Writing</i>	<i>757</i>	<i>765</i>
<i>Mathematics</i>	<i>775</i>	<i>783</i>
<i>Content Specializations³</i>		

TABLE 2: WAGE EARNING EXPERIENCE REQUIRED FOR CLUSTER AREA ENDORSEMENTS

Wage earning experience required for the career and technical education alternatively certified teacher in Adult (Basic) Education		
<i>Wage-Earning Experience – Hold a bachelor’s degree with an overall cumulative grade point average of 2.5 or higher AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested. Relevant teaching experience may count as equal to work experience requirements.</i>		
<i>7900 Adult (Basic) Education</i>	<i>Completion of WVDE required training for Adult Basic Education (both pre-service and in-service trainings) OR equivalent from another state</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

AGRICULTURE, FOOD AND NATURAL RESOURCES

<p><i>Wage earning experience required for the career and technical education alternatively certified teacher in Agriculture, Food and Natural Resources</i></p>
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>

<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7410 Forestry</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7430 Oil/Gas Extraction and Distribution</i>		
<i>7720 Agriculture Industry</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7726 Mining Extraction</i>	<i>Miner’s Health Safety and Training</i>	<i>40-Hour Surface Mining Card 80 Hour Underground Card</i>
<i>7800 Agribusiness Systems</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7801 Animal Systems</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course</i>

		<i>work related to Career and Technical Education.</i>
<i>7802 Food Products and Processing</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7803 Natural Resource Systems</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7804 Plant Systems</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7805 Power Structure and Technical Systems</i>	<i>FFA/SAE Certificate</i>	<i>Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.</i>
<i>7962 Pet Grooming</i>	<i>Pet Grooming for Secondary Education Certificate</i>	<i>Complete a minimum of 50 hours of professional development and/or WVDE approved course work related to Career and Technical Education</i>
<i>7964 Environmental Technology and Management</i>		

ARCHITECTURE AND CONSTRUCTION CLUSTER

<p align="center"><i>Wage earning experience required for the career and technical education alternatively certified teacher in Architecture and Construction Cluster</i></p>		
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i> <i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i> <i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
<p><i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i></p>	<p><i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i></p>	<p><i>INDUSTRY CREDENTIALING ORGANIZATION/S</i></p>
<p><i>7083 Air Conditioning and Refrigeration</i></p>	<p><i>HVAC Technician Certification</i></p>	<p><i>West Virginia Division of Labor</i></p>
<p><i>7105 Civil Technology</i></p>	<p><i>Certified Drafters – Architectural or Certified Drafters – Mechanical or Certified Drafters - Civil</i></p>	<p><i>American Design and Drafting Association (ADDA)</i></p>
<p><i>7030 Electrical Technology</i></p>	<p><i>Master Electrician License</i></p>	<p><i>WV State Fire Marshal</i></p>
<p><i>7021 Carpentry</i></p>		
<p><i>7027 Building Maintenance & Operations</i></p>		
<p><i>7028 General Building Construction (House Construction)</i></p>		
<p><i>7022 Masonry</i></p>		
<p><i>7073 Operation/Maintenance-Heavy Equipment</i></p>		
<p><i>7023 Plumber and Pipefitting</i></p>	<p><i>WV Master Plumber's License</i></p>	<p><i>West Virginia Division of Labor</i></p>

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

<p><i>Wage earning experience required for the career and technical education alternatively certified teacher in Arts, A/V Technology and Communications Cluster</i></p>
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested. Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>

<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7175 Broadcasting Technology</i>		
<i>7012 Commercial Art</i>		
<i>7132 Communication Technology</i>		
<i>7014 Graphic Arts</i>		
<i>7015 Offset Printing</i>		

BUSINESS MANAGEMENT AND ADMINISTRATION

<p><i>Wage earning experience required for the career and technical education alternatively certified teacher in Business Management and Administration Cluster</i></p>
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested. Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>

<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7721 Business Management & Administration Industry</i>	<i>Fundamental Business Concepts</i>	<i>A*S*K Institute</i>

FINANCE

<p><i>Wage earning experience required for the career and technical education alternatively certified teacher in Finance Cluster</i></p>
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>

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<i>7722 Finance Industry</i>	<i>Concepts of Finance</i>	<i>A*S*K Institute</i>

HEALTH SCIENCE EDUCATION

Wage earning experience required for the career and technical education alternatively certified teacher in Health Science Education is specified in relevant sections below

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<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
7457 AC Health Informatics I		Complete Professional Development and/or WVDE approved course work related to Career and Technical Education.
<p><i>Wage-Earning Experience – Bachelor’s Degree. – Hold a bachelor’s degree in an area related to the specialization AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p>		

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<p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p>		
7048 Health Assistant	Valid West Virginia License as Registered Nurse (RN).	West Virginia Board of Examiners for Registered Professional Nurses
7403 Veterinary Technician	Educated from an American Veterinary Medical Association accredited Veterinary Technology program and currently a Licensed Veterinary Technician or Registered Veterinary Technician or Certified Veterinary technician or hold credential by passing the Veterinary Technician National Exam prior to change of 1/1/2010.	West Virginia State Veterinary Board and American Association of Veterinarian State Boards.

<p><i>Wage-Earning Experience – Bachelor’s Degree. – Hold a bachelor’s degree in an area related to the specialization AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested which includes 1 year (2080 hours) in a certified nursing home, or distinct part of a hospital that meets the requirements of subacute/rehabilitation/nursing home experience; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested which includes 1 year (2080 hours) in a certified nursing home, or distinct part of a hospital that meets the requirements of subacute/rehabilitation/nursing home experience.</i></p>		
7042 Nursing Aide Valid West Virginia	License West Virginia as Registered Nurse Registered	Board of (RN) Examiners for Professional Nurses
<p><i>Wage Earning Experience – Complete 3 years (6000 clock hours) employment as a registered professional nurse 3 years immediately preceding employment as a faculty member; have or be enrolled in a baccalaureate degree program; have at least 3 years of experience as a registered professional nurse which should include 2 years of patient side nursing care experience in an acute, intermediate or long term care clinical facility; 1 year experience in one or more of the following areas: teaching, supervision or administration; and present evidence of continuing education.</i></p>		
7041 Practical Nursing (LPN)	Valid unencumbered West Virginia License as Registered Nurse (RN)	West Virginia Board of Examiners for registered Professional Nurses

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7043 Dental Assistant Medical	Assistant from the American Technician Licensed Dental Hygienist	Holds a valid certification from the Dental Assistant National Board, or a Registered Dental Certified Dental Assistant or Organization or has passed the national board dental

<i>hygiene examination and the WV Dental Board examination.</i>		
<i>Wage-Earning Experience – Complete two years (4,000 clock hours) of wage earning experience as a dental laboratory technician as qualified by education, training or experience who has completed a dental laboratory technology education program and who fabricates, repairs or alters a dental prosthesis in accordance with a dentist’s work authorization. The most recent experience must have been within the past three years and beyond the training period.</i>		
<i>7171 Dental Lab Technician</i>	<i>Dental Lab Technician or Dentist</i>	<i>Hold a valid certificate from the National Board for Certification hereinafter NCB. A Doctor of Dental Surgery (DDS) or Doctor of Dental Medicine (DMD) and licensed in the state of WV to practice in the profession.</i>
<i>Wage-Earning Experience – Complete two years (4,000 clock hours) of wage earning experience in a healthcare facility working with filtering data, medical records and/or health informatics. The most recent experience must have been within the past three years and beyond the training period. Completion of three years (6000 clock hours) of on the job training in health informatics (coding, electronic health record implementation, data mining) in this specialization may count toward two years of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i>		
<i>7724 Health Informatics</i>	<i>Medical Assistant or Valid West Virginia Licenses as Registered Nurse (RN) Or healthcare experience and hold a certification by the American Health Informatics Association</i>	<i>Hold a valid certificate from the American Association of Medical Assistants (AAMA), National Association for Health Professionals (NAHP), National Center for Competency Testing (NCCT), National Healthcareer Association (NHA), American Medical Technologists (AMT) or</i>
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
	<i>Or Certified Coding Associate, Certified Coding Specialist or a Registered Health Information Technician.</i>	<i>a valid license as a registered nurse in West Virginia with a minimum of a nursing diploma/associate degree and/or hold a certification by the American Health Informatics Association.</i>
<i>Wage-Earning Experience – Complete two years (4,000 clock hours) of wage earning experience in a medical office or out-patient clinic with experience in all aspects of medical office practice, i.e. insurance, medical transcription, and clinical procedures such as treatments and examinations. The most recent experience must have been within the past three years and beyond the training period.</i>		

7045 Medical Assistant	Medical Assistant or Valid West Virginia License as Registered Nurse (RN)	Hold a valid certificate from the American Association of Medical Assistants (AAMA), National Association for Health Professionals (NAHP), National Center for Competency Testing (NCCT), National Healthcareer Association (NHA), American Medical Technologists (AMT) or a valid license as a registered nurse in West Virginia with a minimum of an associate degree.
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Wage-Earning Experience-Complete four (4) years (8,000 clock hours) of EMT experience, which may include emergency room or emergency medical care with a licensed Emergency Medical Service agency. Successful completion of a WVOEMS approved educational methodology course or an equivalent professional higher education course. Successful completion of sixteen (16) student teaching hours under the supervision of a Master Instructor. Must meet all requirements outlined in the WVOEMS Certification Requirements for Basic Life Support Lead Instructor

7050 Medical Emergency Preparedness	Valid West Virginia of or National Registry Services EMT or higher	EMT, West Virginia Office for Emergency Medical (WVOEMS) or National Registry Certification for EMT (NREMT)
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Wage-Earning Experience – Complete two years (4,000 clock hours) of wage earning experience as a certified/registered pharmacy technician which means as a registered supportive personnel who work under the direct supervision of a pharmacist or as a registered nurse. The most recent experience must have been within the past three years and beyond the training period.

7608 Pharmacy Technician	Valid Certified Pharmacy Technician (CPhT) or a Registered Pharmacy Technician (RPT) or a Registered Nurse	West Virginia Board of Pharmacy for Pharmacy Technician. West Virginia Board of Examiners for Registered Professional Nurses
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WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
<i>Wage-Earning Experience – Complete two years (4,000 clock hours) of wage earning experience as a certified phlebotomy technician, as a registered supportive personnel who works under the direct supervision of a medical lab assistant or director or complete two years (4000) hours of wage earning experience in a clinical laboratory in a hospital, physician’s office or clinic in the performance of collection of routine laboratory samples.</i>		

7603 Phlebotomist	Valid Certified Phlebotomy certification or a Medical Laboratory Technician or a Registered Nurse	American Society of Phlebotomy (ASPT) National Health Career Association or American Medical Technologist Association (AMTA) also known as American Medical Technologist (AMT) Or Medical Lab Assistant Certification (CMLA) or American Society of Clinical Pathology (ASCP) or International Society for Clinical Lab Technology (ISCLT) or West Virginia Board of Examiners for Registered Professional Nurses
<i>Wage-Earning Experience – Complete two years (4000) hours of wage earning experience in a clinical laboratory in a hospital, physician’s office or clinic in the performance of routine laboratory procedures in bacteriology, blood-banking, hematology, urinalysis and serology. The most recent experience must have been within the past three years and beyond the training period.</i>		
7172 Lab Tech-Medical	Medical Lab Technician	(AMT) or Medical Lab Assistant Certification (CMLA) or American Society of Clinical Pathology (ASCP) or International Society for Clinical Lab Technology (ISCLT)
7614 Foundations of Health Science	Hold a Professional Teaching Certificate endorsed for biology, chemistry, general science or health	Complete WVDE sponsored professional development yearly
<i>Wage-Earning Experience – Complete two years (4,000 clock hours) of wage earning experience in a hospital or out-patient clinic with experience in all aspects of respiratory therapy including clinical procedures such as treatments, examinations and documentation. The most recent experience must have been within the past three years and beyond the training period.</i>		
7606 Respiratory Therapy	Certified Respiratory Therapist	Licensed by the West Virginia Board of Respiratory Therapy
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
	or Registered Respiratory Therapist	

<p><i>Wage-Earning Experience —Hold a related associate degree; have or be enrolled in a baccalaureate degree program; Complete two years (4,000 clock hours) employment as a Certified Surgical Technologist or a Certified Technologist/Surgical Assistant in a hospital or out-patient clinic with experience in all aspects of Surgical Technology including surgical procedures, surgical instrumentation, and operating room policy and surgical procedures preceding employment as a faculty member. Must also be familiar with central supply certification requirements. The most recent employment experience must have been within the past three years and beyond the training period.</i></p>		
7607 Surgical Technologist	<i>Certified Surgical Technologist or Certified Technologist/Surgical Assistant</i>	<i>National Board of Surgical Technology and Surgical Assisting</i>
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR Bachelor’s Degree – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR Associate Degree – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Certified by the National Certification Board for Therapeutic Massage and Bodywork. Have graduated from an approved massage education program with at least 500 hours of supervised academic instruction from an accredited school.</i></p>		
7625 Massage Therapy	<i>National Certification of Therapeutic Massage and Body Work or Federation of State Massage Therapy Board</i>	<i>Hold a valid certificate from the West Virginia Massage Therapy Board and valid Cardiopulmonary Resuscitation (CPR) card.</i>
<p><i>Wage-Earning Experience -- Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in a medical/health care setting with experience in selected health care professions in which a valid certificate or license is held. The most recent must have been within the past 3 years and beyond the training period.</i></p> <p><i>OR</i></p> <p><i>Bachelor’s Degree in Related Area – Hold a bachelor’s degree in a related area.</i></p>		
7615 Other Health Occupations	<i>Hold a valid certificate or license from the appropriate state and/or national organization or agency, when applicable</i>	
7966 Biomedical Science	<i>Project Lead the Way Certificate</i>	<i>Project Lead the Way Core Training</i>

HOSPITALITY AND TOURISM

Wage earning experience required for the career and technical education alternatively certified teacher in Hospitality and Tourism

<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
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<i>7095 Culinary Arts</i>	<i>ServSafe for Managers</i>	<i>National Restaurant Association</i>
<i>7315 Lodging, Travel and Tourism</i>		
<i>7320 Event Planning and Design Production</i>		
<i>0227 Parks and Recreation Management</i>	<i>Cardiopulmonary Resuscitation Instructor Certification, and First Aid</i>	<i>American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council</i>
<i>7967 Baking and Pastry</i>	<i>ServSafe for Managers</i>	<i>National Restaurant Association</i>

HUMAN SERVICES

<p><i>Wage earning experience required for the career and technical education alternatively certified teacher in Human Services</i></p>		
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
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7185 Social Services Occupation	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council
7065 Cosmetology	Cosmetologist & Instructor License	WV Board of Barbers & Cosmetologists
7473 Barbering	Barber & Instructor License	WV Board of Barbers & Cosmetologists
7317 Early Childhood Education	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council
7627 Direct Support Professional	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council
7626 Personal Fitness and Wellness Training	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, and National Safety Council
7316 Personal Organizer	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, and National Safety Council
7714 Prevention Support Specialist	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council
7728 Nail Technology	Nail Technician & Instructor License	WV Board of Barbers and Cosmetologists
7723 Hair Styling	Hair Stylist & Instructor License	WV Board of Barbers and Cosmetologists

INFORMATION TECHNOLOGY

<i>Wage earning experience required for the career and technical education alternatively certified teacher in Information Technology</i>		
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7212 Computer Technology - System</i>	<i>CompTIA A+ CompTIA Network+</i>	<i>Computing technology Industry Association (CompTIA)</i>
<i>7970 Computer Technology – Application Software</i>	<i>Current MOS Certification Exams – Word, Excel, PowerPoint, Access</i>	<i>Microsoft Certifications via Certiport</i>
<i>7449 AC Informatics I</i>		<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7954 Networking</i>	<i>CISCO Certified Network Associate (CCNA)</i>	<i>CISCO</i>
<i>7968 Computer Science</i>	<i>Project Lead the Way Certificate</i>	<i>Project Lead the Way Core Training</i>

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

<i>Wage earning experience required for the career and technical education alternatively certified teacher in Law and Public Safety, Corrections and Security</i>

Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR
Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR
Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.

Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.

<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7710 Criminal Justice</i>	<i>Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards</i>	<i>American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council</i>
<p><i>License – Hold a current West Virginia EMT or Paramedic License and a current Cardiopulmonary Resuscitation, hereinafter CPR, Instructor Certification and documentation of completion of the field based experience in fire instruction and EMT instructor training; AND</i> <i>Experience – Complete four years (8,000 clock hours) of satisfactory recent work experience with a combination of in fire service and EMT experience, which may include emergency room or emergency medical care; AND</i> <i>Test – Test scores reflecting a minimum of 85% on the West Virginia EMT certification or re-certification examination and on the West Virginia State Fire Commission approved exam for the Fire Fighter 1 and Fire Fighter 2 or the National Fire Protection Association, hereinafter NFPA 1001 National Certification Exam.</i></p>		
<i>7040 Emergency Services</i>	<i>WV EMT-Basic or Paramedic Certification Instructor Certification; First Aid Certification; Field Based Experience in EMT Training; Field Based Experience in fire service training; Firefighter 1 and Firefighter 2; Materials Operations Level Certification</i>	<i>WV State Fire Commission WV Department of Health & Human Services, Bureau of Public Health, Office of Emergency Medical Services American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, and National Safety Council</i>

7060 Industrial Fire Management	<p><i>Certified in First Aid; CPR-Instructor Certification; Field Based Experience in fire service training; Fire Fighter 1 and Firefighter 2; and Hazardous Materials Operations Level Certifications.</i></p>	<p><i>WV State Fire Commission</i></p> <p><i>American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council</i></p>
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MANUFACTURING

<p align="center"><i>Wage earning experience required for the career and technical education alternatively certified teacher in Manufacturing</i></p>		
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
<p><i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i></p>	<p><i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i></p>	<p><i>INDUSTRY CREDENTIALING ORGANIZATION/S</i></p>
7000 Automotive Machining		
7016 Industrial Control Systems		
7131 Electronics Technology	CETA	Electronics Technicians Association (ETA)
7069 Hydraulics/Pneumatics		
7070 Industrial Equipment Maintenance		
7051 Machine Tool Technology	Machining Level 1	National Institute for Metal Working Skills (NIMS)
7469 AC Advanced Manufacturing I		<p><i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i></p>
7181 Manufacturing Technology		
7092 Millwork and Cabinet		

7052 Welding	<i>SMAW Plate and GMAW Plate in the 2G, 3G and 4G positions (SMAW and GMAW Pipe in the 6G position exceeds the minimum plate requirements)</i>	<i>American Welding Society (AWS) or WVDE Welding Certification</i>
7221 Robotics		
7953 Cabling Technology	<i>C-Tech Certification</i>	<i>C-Tech</i>

MARKETING

<i>Wage earning experience required for the career and technical education alternatively certified teacher in Marketing</i>		
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i> <i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i> <i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7727 Marketing Industry</i>	<i>Fundamental Marketing Concepts</i>	<i>A*S*K Institute</i>

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

<i>Wage earning experience required for the career and technical education alternatively certified teacher in Science, Technology, Engineering and Mathematics</i>		
<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
<i>7441 AC Aerospace Engineering I</i>		<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7461 AC Clean Energy I</i>		<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7465 AC Energy, Power, and Engineered Systems I</i>		<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7445 AC Innovations in Science and Technology I</i>		<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7550 Pre-Engineering</i>	<i>Project Lead the Way Certificate</i>	<i>Project Lead the Way Core Training</i>

TRANSPORTATION, DISTRIBUTION AND LOGISTICS

<i>Wage earning experience required for the career and technical education alternatively certified teacher in Transportation, Distribution and Logistics</i>

<p><i>Wage-Earning Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in the occupation for which licensure is requested; OR</i></p> <p><i>Bachelor’s Degree. – Hold a bachelor’s degree AND complete two years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested; OR</i></p> <p><i>Associate Degree. – Hold an Associate Degree in an area related to the specialization AND complete two (2) years (4,000 clock hours) of satisfactory and reasonably continuous work experience in the area for which licensure is requested.</i></p> <p><i>Completion of a full year of training from an approved education program in the specialization may count toward a half year of the work experience requirements. Relevant teaching experience may count as equal to work experience requirements.</i></p>		
<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>	<i>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7001 Automotive Technology</i>	<i>A8 - Engine Performance A5 - Brakes A6 - Electrical/Electronic Systems A4 – Suspension & Steering</i>	<i>National Institute for Automotive Service Excellence (ASE)</i>
<i>7007 Diesel Equipment Technology</i>	<i>T2 - Diesel Engines T5 - Suspension/Steering T4 - Brakes T6 - Electrical/Electronic Systems T8 - Preventative Maintenance Inspection</i>	<i>National Institute for Automotive Service Excellence (ASE)</i>
<i>7010 Collision Repair</i>	<i>B4 – Structural Analysis & Damage Repair B3 – Non-Structural Analysis & Damage Repair B2 – Painting & Refinishing B5 – Mechanical & Electrical Components</i>	<i>National Institute for Automotive Service Excellence (ASE)</i>
<i>7453 AC Global Logistics and Supply Chain Management I</i>		<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education</i>
<i>7098 Materials Distribution</i>		

7006 Power Equipment Technology		
7180 Transportation Technology		

¹Exemptions to the Basic Skills Tests are identified in §126-136-10.1.b.3.F.1

²The testing components and scores established for the renewal of a permit are also required for the issuance of a Career/Technical Certificate.

³If a NOCTI test or a national or state certificate or license is not available, content specialization test may be developed or obtained from other sources.

⁴The minimum score for passing the NOCTI test shall be one-half standard deviation below the mean plus the standard error of measurement.

⁵Three years of relevant teaching experience within the last seven years in one or combination of specializations recognized on a valid Out-of-State Career and Technical Education Certificate may be accepted in place of the wage-earning experience requirements of this manual.

⁶If continuously employed on a First-Class/Full-Time Permit for Career and Technical Education (CTE), an individual who holds an endorsement no longer included in of this manual, may use the criteria effective at the time of application for the initial First Class/Full-Time permit when applying for permit renewal or initial CTE certification.

TABLE 3 Content Written and Performance Test and Industry Credentials

<i>Endorsement Name</i>	<i>NOCTI Exam</i>	<i>1 Year to Earn Industry Credential</i>	<i>Industry Credential Required Prior to Being Hired</i>
AGRICULTURE, FOOD AND NATURAL RESOURCES			
7720 Agriculture Industry	X	X	
7410 Forestry		X	
7726 Mining Extraction		X	
7430 Oil/Gas Extraction and Distribution			
7962 Pet Grooming		X	
7964 Environmental Technology and Management			
7800 Agribusiness Systems			
7801 Animal Systems			
7802 Food Products and Processing Systems			
7803 Natural Resources Systems			
7804 Plant Systems			
7805 Power Structure and Technical Systems			

ARCHITECTURE AND CONSTRUCTION CLUSTER

7083 Air Conditioning and Refrigeration		X (Expired Credential and Substitute Permit)	X (Certificate and First Class Full Time Permit)
7105 Civil Technology		X	
7030 Electrical Technology			X
7021 Carpentry	X		
7027 Building Maintenance & Operations	X		
7028 General Building Construction (House Construction)	X		
7022 Masonry	X		
7073 Operation/Maintenance-Heavy Equipment	X		
7023 Plumber and Pipefitting			X

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

7175 Broadcasting Technology	X		
7012 Commercial Art	X		
7132 Communication Technology	X		
7014 Graphic Arts	X		
7015 Offset Printing	X		

BUSINESS MANAGEMENT & ADMINISTRATION

7721 Business Management & Administration Industry		X	
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FINANCE

7722 Finance		X	
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HEALTH SCIENCE EDUCATION

7457 AC Health Informatics I		X	
7048 Health Assistant			X
7042 Nursing Aide			X

7403 Veterinary Technician			X
7041 Practical Nursing (LPN)			X
7043 Dental Assistant			X
7171 Dental Lab Technician			X
7724 Health Informatics			X
7045 Medical Assistant			X
7050 Medical Emergency Preparedness			X
7608 Pharmacy Technician			X
7603 Phlebotomist			X
7172 Lab Tech-Medical			X
7614 Foundations of Health Science			X
7606 Respiratory Therapy			X
7607 Surgical Technologist			X
7625 Massage Therapy			X
7615 Health Occupations		X	
7966 Biomedical Science		X	
HOSPITALITY AND TOURISM			
7095 Culinary Arts	X	X	
7315 Lodging, Travel and Tourism	X		
7320 Event Planning and Design Production			
0227 Parks and Recreation Management		X	
7967 Baking and Pastry	X		
HUMAN SERVICES			
7185 Social Services Occupation		X	
7065 Cosmetology			X
7473 Barbering			X
7317 Early Childhood Education	X	X	
7900 Adult (Basic) Education			X
7627 Direct Support Professional		X	
7626 Personal Fitness and Wellness Training		X	
7316 Personal Organizer		X	
7714 Prevention Support Specialist		X	
7728 Nail Technology			X
7723 Hair Styling			X
INFORMATION TECHNOLOGY			
7212 Computer Technology – System		X	
7970 Computer Technology – Application Software		X	
7449 AC Informatics I		X	
7954 Networking			X
7968 Computer Science		X	
LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY			
7710 Criminal Justice	X	X	

7040 Emergency Services			X
7060 Industrial Fire Management			X
7050 Medical Emergency Preparedness			X
MANUFACTURING			
7000 Automotive Machining			
7016 Industrial Control Systems			
7131 Electronics Technology		X	
7069 Hydraulics/Pneumatics			
7070 Industrial Equipment Maintenance	X		
7051 Machine Tool Technology		X	
7469 AC Advanced Manufacturing I		X	
7181 Manufacturing Technology			
7092 Millwork and Cabinet	X		
7052 Welding		X (Substitute Permit)	X (First Class Full Time Permit and Certificate)
7953 Cabling Technology		X	
MARKETING			
7727 Marketing Industry		X	
SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS			
7441 AC Aerospace Engineering I		X	
7461 AC Clean Energy I		X	
7465 AC Energy Power, and Engineered Systems I		X	
7445 AC Innovations in Science and Technology I		X	
7550 Pre-Engineering		X	
TRANSPORTATION, DISTRIBUTION AND LOGISTICS			
7001 Automotive Technology		Expired Credential	X
7007 Diesel Equipment Technology		Expired Credential	X
7010 Collision Repair		Expired Credential	X
7453 AC Global Logistics and Supply Chain Management I		X	
7006 Power Equipment Technology	X		
7960 Commercial Driver's License			X
7180 Transportation Technology		X	

TABLE 3.1 Content Written and Performance Test and Industry Credentials Section 1
NOCTI exam requirements

AGRICULTURE, FOOD AND NATURAL RESOURCES

<i>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</i>
<i>7720 Agriculture Industry, NOCTI #5185 Production Agriculture</i>

ARCHITECTURE AND CONSTRUCTION

<i>7021 Carpentry, NOCTI #5265 -- Carpentry</i>
<i>7027 Building Maintenance & Operations, NOCTI #5264 – Building Trades Maintenance</i>
<i>7028 General Building Construction (House Construction), NOCTI #5263 – Building Construction Occupations</i>
<i>7022 Masonry, NOCTI #5933 Mason/Masonry</i>
<i>7073 Operation/Maintenance-Heavy Equipment, NOCTI #5912 -- Heavy Equipment Maintenance and Repair</i>

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

<i>7175 Broadcasting Technology, NOCTI #5186 -- Television Production</i>
<i>7012 Commercial Art, NOCTI #5938 – Graphic Production Technology</i>
<i>7132 Communication Technology, NOCTI #5186 -- Television Production</i>
<i>7014 Graphic Arts, NOCTI #5938 -- Graphic Production Technology</i>
<i>7015 Offset Printing, NOCTI #5938 -- Graphic Production Technology</i>

HOSPITALITY AND TOURISM

<i>7095 Culinary Arts, NOCTI #5167 – Commercial Foods</i>
<i>7315 Lodging, Travel and Tourism, NOCTI #5927 Hospitality Management Lodging – Note: Written NOCTI Only</i>
<i>7967 Baking and Pastry, NOCTI #5918 – Retail Commercial Baking</i>

HUMAN SERVICES

<i>7317 Early Childhood Education, NOCTI #5183 -- Early Childhood Education and Care</i> **Individuals who hold a valid West Virginia Professional Teaching Certificate with an endorsement in 3600 (Elementary Education), 3601 (Early Childhood), 3602 (Primary), 3603 (Early Education), or 3606 (Pre-School Education) are exempt from the NOCTI Exam #5183 (Early Childhood Education and Care

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

<i>7710 Criminal Justice, NOCTI #5269 – Criminal Justice</i>

MANUFACTURING

7070 Industrial Equipment Maintenance, NOCTI #5174 – Industrial Maintenance Mechanics

7092 Millwork and Cabinet, NOCTI #5905 Cabinetmaking

TRANSPORTATION

7006 Power Equipment Technology, NOCTI #5277 – Small Engine Technology

TABLE 3.2 Content Written and Performance Test and Industry Credentials Section

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Industry credentials that meet the NOCTI exam requirements and have 1 year to earn industry credential

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

<i>7710 Criminal Justice</i>	<i>Must submit the following to the WVDE Program Area Coordinator to become exempt from the required NOCTI- WV State Police Academy Training Certificate of completion AND a notarized V10 indicating 5 or more years of Law Enforcement experience</i>
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TABLE 4: CTE Permanent Advanced Credentials

<i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i>
<i>7223 FANUC Operator</i>	<i>Hold one of the following: 7721 Robotics OR 0608 Technology Education AND the FANUC Operator Training Certifications in Materials Handling and IR Vision</i>	<i>Successful completion of the FANUC Operator Training for Materials Handling and IR Vision</i>
<i>7225 Drone Ground and Flight Training</i>	<i>Hold one of the following: 7721 Robotics OR 0608 Technology Education AND the FAA Part 107 Certification</i>	<i>Successful passage of the FAA Part 107 exam from the Federal Aviation Administration</i>

<p>7969 Coding, App, and Game Design</p>	<p><i>Hold a Career and Technical Education Certificate or a Professional Teaching Certificate endorsed for one, at a minimum, of the following: 0400 Business Principles 0419 Business Principles including Business Mathematics 0500 Secretarial Studies or Occupation Commerce 0519 Secretarial Studies including Business Mathematics 0560 Business Education Specialist 0561 Marketing Education Specialist 0600 Business Education 0603 Business Education/Marketing 0605 Business Education including Business Math 0608 Technology Education 1900 Mathematics 7212 Computer Technology – Systems 7970 Computer Technology – Application Software 7954 Networking</i></p>	<p><i>Coding, App, and Game Design 1 (WV Learn Class) AND one of the following MTA Certification (Microsoft Technology Associate):</i></p> <ul style="list-style-type: none"> •Exam 98-361 Software Development Fundamentals •Exam 98-375 HTML5 Application Development Fundamentals •Exam 98-381 Introduction to Programming Using Python •Exam 98-382 Introduction to Programming Using JavaScript •Exam 98-383 Introduction to Programming Using HTML and CSS •Exam 98-388 Introduction to Programming Using Java
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<p><i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i></p>	<p><i>CERTIFICATE REQUIREMENTS</i></p>	<p><i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i></p>
<p>0560 Business Education</p>	<p><i>Hold a valid West Virginia Professional Certificate endorsed at a minimum for one of the following: 0710 Marketing Education or 0700 Distributive Education.</i></p>	<p><i>Successful completion of fifteen (15) clock hours of professional development approved by the WVDE, and successful completion of assignments related to Business Education programs offered by the WVDE.</i></p>

<p><i>0561 Marketing Education</i></p>	<p><i>Hold a valid West Virginia Professional Certificate; endorsed for one, at a minimum, of the following: 0400 Business Principles; 0419 Business Principles including Business Mathematics; 0500 Secretarial Studies or Occupation Commerce; 0519 Secretarial Studies including Business Mathematics; 0600 Business Education; 0605 Business Education including Business Math; or 0700 Distributive Education.</i></p>	<p><i>Successful completion of fifteen (15) clock hours of WVDE-approved professional development and successful completion of assignments related to Marketing Education programs offered by the WVDE.</i></p>
<p><i>7702 Coordinator of Career and Work Skills Training</i></p>	<p><i>Career and Technical Education Certificate or a Professional Teaching Certificate endorsed for a specialization in engineering technical, human services, agriculture, food and natural resources, health science education, marketing education or business education.</i></p>	<p><i>Complete a minimum of one year (2,000 clock hours) of related wage earning experience in a non-teaching position.</i></p>
<p><i>7707 Careers in Education</i></p>	<p><i>Valid Certificate. Hold a Career and Technical Education Certificate or a Professional Teaching Certificate for appropriate grade level.</i></p>	<p><i>Complete professional development and/or coursework related to Careers in Education training programs in Career and Technical Education as specified by the WVDE.</i></p>

<p><i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i></p>	<p><i>CERTIFICATE REQUIREMENTS</i></p>	<p><i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i></p>
<p><i>7705 Gateway</i></p>	<p><i>Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.</i></p>	<p><i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i></p>

<i>7442 AC Aerospace Engineering II</i>	<i>Hold a teaching certification in one of the following areas: 7441 AC Aerospace Engineering I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7443 AC Aerospace Engineering III</i>	<i>Hold a teaching certification in one of the following areas: 7441 AC Aerospace Engineering I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

<i>7444 AC Aerospace Engineering IV</i>	<i>Hold a teaching certification in one of the following areas: 7441 AC Aerospace Engineering I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7446 AC Innovations in Science and Technology II</i>	<i>Hold a teaching certification in one of the following areas: 7445 AC Innovations in Science and Technology I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

<i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i>
<i>7447 AC Innovations in Science and Technology III</i>	<i>Hold a teaching certification in one of the following areas: 7445 AC Innovations in Science and Technology I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7448 AC Innovations in Science and Technology IV</i>	<i>Hold a teaching certification in one of the following areas: 7445 AC Innovations in Science and Technology I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

<i>7450 AC Informatics II</i>	<i>Hold a teaching certification in one of the following areas: 7449 AC Informatics I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
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<i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i>
<i>7451 AC Informatics III</i>	<i>Hold a teaching certification in one of the following areas: 7449 AC Informatics I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7452 AC Informatics IV</i>	<i>Hold a teaching certification in one of the following areas: 7449 AC Informatics I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

<i>7454 AC Global Logistics and Supply Chain Management II</i>	<i>Hold a teaching certification in one of the following areas: 7453 AC Global Logistics and Supply Chain Management I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7455 AC Global Logistics and Supply Chain Management III</i>	<i>Hold a teaching certification in one of the following areas: 7453 AC Global Logistics and Supply Chain Management I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7456 AC Global Logistics and Supply Chain Management IV</i>	<i>Hold a teaching certification in one of the following areas: 7453 AC Global Logistics and Supply Chain Management I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

<i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i>
<i>7458 AC Health Informatics II</i>	<i>Hold a teaching certification in one of the following areas: 7457 AC Health Informatics I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7459 AC Health Informatics III</i>	<i>Hold a teaching certification in one of the following areas: 7457 AC Health Informatics I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7460 AC Health Informatics IV</i>	<i>Hold a teaching certification in one of the following areas: 7457 AC Health Informatics I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7462 AC Clean Energy II</i>	<i>Hold a teaching certification in one of the following areas: 7461 AC Clean Energy I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7463 AC Clean Energy III</i>	<i>Hold a teaching certification in one of the following areas: 7461 AC Clean Energy I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>

<i>7464 AC Clean Energy IV</i>	<i>Hold a teaching certification in one of the following areas: 7461 AC Clean Energy I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i>

<i>7466 AC Energy Power and Engineered Systems II</i>	<i>Hold a teaching certification in one of the following areas: 7465 AC Energy Power and Engineered Systems I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7467 AC Energy Power and Engineered Systems III</i>	<i>Hold a teaching certification in one of the following areas: 7465 AC Energy Power and Engineered Systems I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7468 AC Energy Power and Engineered Systems IV</i>	<i>Hold a teaching certification in one of the following areas: 7465 AC Energy Power and Engineered Systems I</i>	<i>Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.</i>
<i>7563 Digital Electronics (PLTW)</i>	<i>Hold a teaching certification in the following area: 7550 Pre-Engineering</i>	<i>Project Lead the Way Core Training</i>
<i>7564 Engineering Design and Development (PLTW)</i>	<i>Hold a teaching certification in the following area: 7550 Pre-Engineering</i>	<i>Project Lead the Way Core Training</i>
<i>7562 Computer Integrated Manufacturing (PLTW)</i>	<i>Hold a teaching certification in the following area: 7550 Pre-Engineering</i>	<i>Project Lead the Way Core Training</i>
<i>7561 Civil Engineering and Architecture (PLTW)</i>	<i>Hold a teaching certification in the following area: 7550 Pre-Engineering</i>	<i>Project Lead the Way Core Training</i>

<i>WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>PROFESSIONAL DEVELOPMENT/ COURSE WORK</i>
<i>7560 Aerospace Engineering (PLTW)</i>	<i>Hold a teaching certification in the following area: 7550 Pre-Engineering</i>	<i>Project Lead the Way Core Training</i>
<i>7565 Environmental Sustainability (PLTW)</i>	<i>Hold a teaching certification in the following area: 7550 Pre-Engineering</i>	<i>Project Lead the Way Core Training</i>

**TABLE 5: Adult Permit (Part Time) Endorsed
for Areas of Career and Technical Education:**

<i>WVBE ADULT PART TIME PERMIT</i>	<i>PART TIME ADULT PROGRAM</i>	<i>CERTIFICATE REQUIREMENTS</i>	<i>INDUSTRY CREDENTIALING ORGANIZATION/S</i>
<i>7041 Practical Nursing</i>	<i>Practical Nursing Part-Time Instructor</i>	<i>Wage Earning Experience – Complete 3 years (6000 clock hours) employment as a registered professional nurse 3 years immediately preceding employment as a faculty member; have or be enrolled in a baccalaureate degree program; have at least 3 years of experience as a registered professional nurse which should include 2 years of patient side nursing care experience in an acute, intermediate care clinical facility; 1 year experience in one or more of the following areas: teaching, supervision or administration; and present evidence of continuing education.–or long term</i>	<i>West Virginia Board of Examiners for Registered Nurses</i>
<i>7042 Nursing Aide</i>	<i>HE 0761 Certified Nursing Assistant</i>	<i>Wage earning experience. - two years with a related bachelor’s degree or two years with a related</i>	<i>West Virginia Board of Examiners for Registered Professional Nurses</i>

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S
		<p>associate degree. The identified wage earning experience must include 1 year, (2,000 clock hours) of long term care experience within the identified wage earning experience. AND Valid West Virginia License as Registered Nurse (RN)</p>	
7603 Phlebotomist	HE 0773 Phlebotomy Technician	<p>Complete two years (4,000 clock hours) of wage earning experience as a certified phlebotomy technician, as a registered supportive personnel who works under the direct supervision of a medical lab assistant or director. AND Valid Certified Phlebotomy certification</p>	<p>American Society of Phlebotomy (ASPT) National Health Career Association or American Medical Technologist Association (AMTA)</p>
7611 EKG Technician	HE 0810 Electrocardiograph Technician	<p>Complete two years (4,000 clock hours) of wage earning experience as a certified as a Electrocardiograph Technician, as a registered supportive personnel who works who works in a clinic, hospital, emergency services or other health care facility.</p>	<p>Hold a valid certificate or license from the appropriate state and/or national organization or agency, when applicable</p>
7960 Commercial Driver's License	TR 2170 Truck Driver Training	<p>Wage earning experience. - four years with a high school diploma or equivalent, two years with a bachelor's or two years with an associate degree AND Commercial Driver's License (CDL) License</p>	<p>West Virginia Department of Transportation, Division of Motor Vehicles</p>
WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S

<i>7440 Business Prep</i>	<i>BM 1400 Business Prep</i> <i>Any Business Education course listed in the adult programs of study</i>	<i>Wage-Earning Experience—Complete three years (6,000 clock hours) of successful wage-earning experience in the occupation for which licensure is requested</i>	<i>None</i>
<i>7953 Cabling Technology</i>	<i>MA 2165 Cabling Technology</i>	<i>Wage earning experience. - four years with a high school diploma or equivalent, two years with a bachelor's or two years with an associate degree. AND C-Tech Certification</i>	<i>C-Tech</i>
<i>7108 Heavy Equipment Operator</i>	<i>AR9107 Heavy Equipment Operator</i>	<i>Wage earning experience. - four years with a high school diploma or equivalent, two years with a bachelor's or an associate degree AND hold the OSHA 500 Authorization</i>	<i>WVU Extension Service</i>

EMS and Fire Service Endorsements:

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S
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<p>7047 Emergency Medical Services</p>	<p>EMS (Public Service Training)</p>	<p>License. – Hold a current WV EMT, WV Paramedic Certification, or National Registry EMT or Paramedic license; AND Complete four years of recent volunteer or paid work experience, which may include emergency room or emergency medical care, beyond the training period in the occupation to be taught; AND Score a minimum of 85% on WVDE approved examination; AND Hold current CPR instructor certification; And Complete an approved instructor course; AND Successfully complete the EMT field based experience.</p>	<p>WV Department of Health and Human Resources, Bureau of Public Health, Office of Emergency Medical Services or American Red Cross or American Heart Association or American Safety & Health Institute or Emergency Care & Safety Institute or National Safety Council</p>
<p>7087 Fire Service Training</p>	<p>Fire Service Training (Public Service Training)</p>	<p>Complete four years of volunteer or paid work experience in the field of fire service; AND Complete an approved instructor training program and successfully complete the field-based experience in fire instructor training and provide verification from the RESA Public Service Coordinator of completion of required training in firefighting, hazardous materials, CPR and First Aid; AND Score a minimum of 85% on a WVDE approved examination.</p>	<p>American Red Cross or American Heart Association or American Safety & Health Institute or Emergency Care & Safety Institute or National Safety Council</p> <p>WV Fire Commission</p>