

West Virginia Career and Technical Education Endorsement and Testing Manual

Effective July 13, 2022

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^{1,2,3,4,5,6,7}

TABLE 1: REQUIRED BASIC SKILLS TESTS

California Achievement Tests Required for Career/Technical Educators Required Score		
	Career/Technical Permit	Career Technical Certificate
Reading	771	777
Writing	757	765
Mathematics	775	783
Content Specializations ³		

TABLE 2: WAGE-EARNING EXPERIENCE REQUIRED FOR CLUSTER AREA ENDORSEMENTS

WAGE-EARNING experience required for the career and technical educational alternatively certified teacher in Adult (Basic) Education		
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.		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7900 Adult (Basic) Education	NA	<i>Completion of a professional required training for Adult Development through WVDE and/or WVDE- Basic Education Complete a state approved Career and Technical Education program) OR equivalent education from Another state.</i>

AGRICULTURE, FOOD AND NATURAL RESOURCES

WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Agriculture, Food and Natural Resources		
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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7410 Forestry	NA	NA
7430 Oil/Gas Extraction and Distribution	NA	NA

7720 Agriculture Industry	NA	NA
7800 Agribusiness Systems	NA	NA
7801 Animal Systems	NA	NA
7802 Food Products and Processing	NA	NA
7803 Natural Resource Systems	NA	NA
7804 Plant Systems	NA	NA
7805 Power Structure and Technical Systems	NA	NA
7962 Pet Grooming	NA	NA

ARCHITECTURE AND CONSTRUCTION CLUSTER

<p>WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Architecture and Construction Cluster</p>		
<p>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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
<p>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</p>	<p>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</p>	<p>INDUSTRY CREDENTIALING ORGANIZATION/S</p>
7083 Air Conditioning and Refrigeration	HVAC Technician Certification	West Virginia Division of Labor

7105 Civil Technology	Certified Drafters – Architectural or Certified Drafters – Mechanical or Certified Drafters - Civil	American Design and Drafting Association (ADDA)
7030 Electrical Technology	Master Electrician License	WV State Fire Marshal
7021 Carpentry	NA	NA
7027 Building Maintenance & Operations	NA	NA
7028 General Building Construction (House Construction)	NA	NA
7022 Masonry	NA	NA
7073 Operation/Maintenance-Heavy Equipment	NA	NA
7023 Plumber and Pipefitting	WV Master Plumber's License	West Virginia Division of Labor

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

<p align="center">WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Arts, A/V Technology and Communications Cluster</p>		
<p>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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7175 Broadcasting Technology	NA	NA
7132 Communication Technology	NA	NA

7014 Graphic Arts	NA	NA
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BUSINESS MANAGEMENT AND ADMINISTRATION

<p align="center">WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Business Management and Administration Cluster</p>		
<p>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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7721 Business Management & Administration Industry	Fundamental Business Concepts	A*S*K Institute
7230 Entrepreneurship	Concepts of Entrepreneurship and Management	A*S*K Institute

EDUCATION AND TRAINING

<p align="center">WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Education and Training Cluster</p>		
<p>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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
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

FINANCE

WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Finance Cluster		
<p>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.</p> <p style="padding-left: 40px;">Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7722 Finance Industry	Concepts of Finance	A*S*K Institute

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

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
 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
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.

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
 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.
 Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7042 Nursing Aide	Valid West Virginia License as Registered Nurse (RN)	West Virginia Board of Examiners for Registered Professional Nurses
<p>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 with completion within 5-7 years of date of hire; 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.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7041 Practical Nursing	Valid unencumbered West Virginia License as a Registered Nurse (RN)	West Virginia Board of Examiners for Registered Professional Nurses
<p>WAGE-EARNING Experience – Complete four years (8,000 clock hours) of satisfactory and reasonably continuous work experience in a dental office with practice, i.e., scheduling, billing and chair side assisting, and has completed a dental assisting program. The most recent experience must have been within the past three years and beyond the training period; OR</p> <p>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</p> <p>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.</p> <p>Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7043 Dental Assistant	Certified Dental Assistant or Licensed Dental Hygienist	Holds a valid certification from the Dental Assistant National Board, or a Registered Dental Assistant from the American Medical Technician Organization or has passed the national board dental hygiene examination and the WV Dental Board examination.

Wage-Earning Experience – Complete four years (8,000 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; 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7171 Dental Lab Technician	Dental Lab Technician or Dentist	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.

Wage-Earning Experience – Complete four years (8,000 clock hours) 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; 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

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7724 Health Informatics	<p>Medical Assistant or Valid West Virginia Licenses as Registered Nurse (RN) Or healthcare experience and hold a certification by the American Health Informatics Association Or Certified Coding Associate, Certified Coding Specialist or a Registered Health Information Technician.</p>	<p>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 a nursing diploma/associate degree and/or hold a certification by the American Health Informatics Association.</p>
<p>Wage-Earning Experience – Complete four years (8,000 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. 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7045 Medical Assistant	<p>Medical Assistant or Valid West Virginia License as Registered Nurse (RN)</p>	<p>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), American Medical Certification Association (AMCA) or a valid license as a registered nurse in West Virginia with a minimum of an associate degree.</p>

<p>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</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7050 Medical Emergency Preparedness	Valid West Virginia EMT, or National Registry for EMT or higher Certification	West Virginia Office of Emergency Medical Services (WVOEMS) or National Registry for EMT (NREMT)
<p>Wage-Earning Experience – Complete four years (8,000 clock hours) of wage-earning experience as a certified/registered pharmacy technician which means registered supportive personnel who works 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; 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
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
<p>Wage-Earning Experience – Complete four years (8,000 clock hours) as a certified phlebotomy technician which means registered supportive personnel who works under the direct supervision of a medical lab assistant or director, or in a clinical laboratory in a hospital, physician’s office or clinic in the performance of collection of routine laboratory samples; or as a registered nurse; 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements</p>		

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
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
<p>Wage-Earning Experience – Complete four years (8,000 clock 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; OR</p> <p>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</p> <p>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.</p> <p>Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
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

Wage-Earning Experience – Complete four years (8,000 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; 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7606 Respiratory Therapy	Certified Respiratory Therapist or Registered Respiratory Therapist	Licensed by the West Virginia Board of Respiratory Therapy

Wage-Earning Experience – Complete four years (8,000 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; 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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7607 Surgical Technologist	Certified Surgical Technologist or Certified Technologist/Surgical Assistant	National Board of Surgical Technology and Surgical Assisting

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.

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.

Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7625 Massage Therapy	National Certification of Therapeutic Massage and Body Work or Federation of State Massage Therapy Board	Hold a valid certificate from the West Virginia Massage Therapy Board and valid Cardiopulmonary Resuscitation (CPR) card.

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; OR
 Bachelor’s Degree in Related Area – Hold a bachelor’s degree in a related area.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7966 Biomedical Science	Project Lead the Way Certificate	Project Lead the Way Core Training

Wage-Earning Experience-Bachelor’s Degree or higher AND complete least two years (4,000 clock hours) of satisfactory and reasonably continuous work experience as a Licensed Athletic Trainer.

Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
<u>7620 Sports Medicine</u>	<u>Valid West Virginia License as Certified Athletic Trainer</u>	<u>West Virginia Board of Physical Therapy and Board of Certification</u>

HOSPITALITY AND TOURISM

<p>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.</p> <p>Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7095 Culinary Arts	ServSafe for Managers	National Restaurant Association
7315 Lodging, Travel and Tourism	NA	NA
7320 Event Planning and Design Production	NA	NA
0227 Parks and Recreation Management	Cardiopulmonary Resuscitation Instructor Certification, and First Aid	American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council
7967 Baking and Pastry	ServSafe for Managers	National Restaurant Association

HUMAN SERVICES

<p>WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Human Services</p>		
<p>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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</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
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
<u>7932 American Sign Language Interpreter Educator</u>	<u>Sign Language Interpreter Certification</u>	<u>Registered with RID (Registry of Interpreters for the Deaf) to obtain and or verify VQAS (Virginia Quality Assurance Screening) OR</u>

		<u>EIPA (Educational Interpreter Performance Assessment)</u>
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INFORMATION TECHNOLOGY

WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Information Technology		
<p>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.</p> <p>Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7212 Computer Technology - System	CompTIA A+ CompTIA Network+	Computing Technology Industry Association (CompTIA)
7970 Computer Technology – Application Software	Current MOS Certification Exams – Word, Excel, PowerPoint	Microsoft Certifications via Certiport
7449 AC Informatics I	Southern Regional Education Board Certificate	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7954 Networking	CISCO Certified Network Associate (CCNA)	CISCO
7968 Computer Science	Project Lead the Way Certificate	Project Lead the Way Core Training

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

<p>WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Law and Public Safety, Corrections and Security</p>		
<p>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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
<p>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</p>	<p>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</p>	<p>INDUSTRY CREDENTIALING ORGANIZATION/S</p>
<p>7710 Criminal Justice</p>	<p>Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards</p>	<p>American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council</p>
<p>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 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 Test – Test scores reflecting a minimum of 85% on the National Registry 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.</p>		

7040 Emergency Services	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	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
7060 Industrial Fire Management	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.	WV State Fire Commission American Red Cross, American Heart Association, American Safety & Health Institute, Emergency Care & Safety Institute, National Safety Council

MANUFACTURING

WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Manufacturing		
<p>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.</p> <p style="padding-left: 40px;">Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S

7016 Industrial Control Systems	NA	NA
7131 Electronics Technology	CETa	Electronics Technicians Association (ETA)
7070 Industrial Equipment Maintenance	NA	NA
7051 Machine Tool Technology	Machining Level 1	National Institute for Metal Working Skills (NIMS)
7469 AC Advanced Manufacturing I	Southern Regional Education Board Certificate	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7092 Millwork and Cabinet	NA	NA
7052 Welding	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)	American Welding Society (AWS) accredited testing facility or WVDE approved welding certification test site
7221 Robotics	NA	NA
7223 FANUC Operator	NA	NA

MARKETING

<p>WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Marketing</p>		
<p>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.</p> <p>Completion of a full program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.</p>		
<p>WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study</p>	<p>REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION</p>	<p>INDUSTRY CREDENTIALING ORGANIZATION/S</p>

7727 Marketing Industry	Fundamental Marketing Concepts	A*S*K Institute
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SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Science, Technology, Engineering and Mathematics

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 program of study 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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7441 AC Aerospace Engineering I	Southern Regional Education Board Certificate	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7461 AC Clean Energy I	Southern Regional Education Board Certificate	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7465 AC Energy, Power, and Engineered Systems I	Southern Regional Education Board Certificate	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7445 AC Innovations in Science and Technology I	Southern Regional Education Board Certificate	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7550 Pre-Engineering	Project Lead the Way Certificate	Project Lead the Way Core Training: IED & POE required

TRANSPORTATION, DISTRIBUTION AND LOGISTICS

WAGE-EARNING experience required for the career and technical education alternatively certified teacher in Transportation, Distribution and Logistics

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 program of study from an approved education program in the specialization may count toward a half year of the work experience requirements.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE Programs of Study	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENTIALING ORGANIZATION/S
7001 Automotive Technology	A4 – Suspension & Steering A5 – Brakes A6 –Electrical/Electronic Systems A8 – Engine Performance	National Institute for Automotive Service Excellence (ASE)
7007 Diesel Equipment Technology	T2 – Diesel Engines T4 – Brakes T5 – Suspension/Steering T6 – Electrical/Electronic Systems T8 – Preventative Maintenance Inspection	National Institute for Automotive Service Excellence (ASE)

7010 Collision Repair	B2 – Painting & Refinishing B3 – Non-Structural Analysis & Damage Repair B4 – Structural Analysis & Damage Repair B5 – Mechanical & Electrical Components	National Institute for Automotive Service Excellence (ASE)
7453 AC Global Logistics and Supply Chain Management I	NA	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education
7006 Power Equipment Technology	NA	NA

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.

⁷Teaching uncertified does not count as Wage-Earning Experience.

Agriculture, Food, and Natural Resources			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7720 Agriculture Industry	X	NA	NA
7410 Forestry	NA	NA	NA
7726 Mining Extraction	NA	NA	NA
7430 Oil/Gas Extraction and Distribution	NA	NA	NA
7962 Pet Grooming	NA	NA	NA
7964 Environmental Technology and Management	NA	NA	NA
7800 Agribusiness Systems	NA	NA	NA
7801 Animal Systems	NA	NA	NA
7802 Food Products and Processing Systems	NA	NA	NA
7803 Natural Resources Systems	NA	NA	NA
7804 Plant Systems	NA	NA	NA
7805 Power Structure and Technical Systems	NA	NA	NA
Architecture and Construction Cluster			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	
7083 Air Conditioning and Refrigeration	NA	NA	X
7105 Civil Technology	NA	X	NA
7030 Electrical Technology		NA	X
7021 Carpentry	X	NA	NA
7027 Building Maintenance & Operations	X	NA	NA
7028 General Building Construction (House Construction)	X	NA	NA
7022 Masonry	X	NA	NA
7073 Operation/Maintenance-Heavy Equipment	X	NA	NA

7023 Plumber and Pipefitting	NA	NA	X
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Arts, A/V Technology and Communications			
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Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7175 Broadcasting Technology	X	NA	NA
7132 Communication Technology	X	NA	NA
7014 Graphic Arts	X	NA	NA

Business Management and Administration			
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Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7721 Business Management & Administration Industry	NA	X	NA
7230 Entrepreneurship	NA	X	NA

Education and Training			
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Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7317 Early Childhood Education	X	X	NA

Finance			
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Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7722 Finance	NA	X	NA

Health Science Education			
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Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7048 Health Assistant	NA	NA	X
7042 Nursing Aide	NA	NA	X
7403 Veterinary Technician	NA	NA	X
7041 Practical Nursing (LPN)	NA	NA	X
7043 Dental Assistant	NA	NA	X
7171 Dental Lab Technician	NA	NA	X
7724 Health Informatics	NA	NA	X
7045 Medical Assistant	NA	NA	X

7050 Medical Emergency Preparedness	NA	NA	X
7608 Pharmacy Technician	NA	NA	X
7603 Phlebotomist	NA	NA	X
7172 Lab Tech-Medical	NA	NA	X
7614 Foundations of Health Science	NA	NA	X
7606 Respiratory Therapy	NA	NA	X
7607 Surgical Technologist	NA	NA	X

7625 Massage Therapy	NA	NA	X
7966 Biomedical Science	NA	X	NA

Hospitality and Tourism

Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7095 Culinary Arts	X	X	NA
7315 Lodging, Travel and Tourism	X	NA	NA
7320 Event Planning and Design Production	NA	NA	NA
0227 Parks and Recreation Management	NA	X	NA
7967 Baking and Pastry	X	X	NA

Human Services

Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7185 Social Services Occupation	NA	X	NA
7065 Cosmetology	NA	NA	X
7473 Barbering	NA	NA	X
7900 Adult (Basic) Education	NA	NA	X
7714 Prevention Support Specialist	NA	X	NA
7728 Nail Technology	NA	NA	X
7723 Hair Styling	NA	NA	X

7932 American Sign Language Interpreter Educator	NA	X	X
Information Technology			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7212 Computer Technology – System	NA	X	NA
7970 Computer Technology – Application Software	NA	X	NA
7449 AC Informatics I	NA	X	NA
7954 Networking	NA	NA	X
7968 Computer Science	NA	X	NA
Law and Public Safety, Corrections and Security			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7710 Criminal Justice	X	X	NA
7040 Emergency Services	NA	NA	X

7060 Industrial Fire Management	NA	NA	X
7050 Medical Emergency Preparedness	NA	NA	X
Manufacturing			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7016 Industrial Control Systems	NA	NA	NA
7131 Electronics Technology	NA	X	NA
7070 Industrial Equipment Maintenance	NA	NA	NA
7051 Machine Tool Technology	NA	X	NA
7469 AC Advanced Manufacturing I	NA	X	NA
7092 Millwork and Cabinet	X	NA	NA
7052 Welding	NA	X (Substitute Permit)	X (First Class Full Time Permit and Certificate)
<u>7223 FANUC Operator</u>	<u>X</u>	<u>NA</u>	<u>NA</u>

Marketing			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7727 Marketing Industry	NA	X	NA
Science, Technology, Engineering and Mathematics			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7441 AC Aerospace Engineering I	NA	X	NA
7461 AC Clean Energy I	NA	X	NA
7465 AC Energy Power, and Engineered Systems I	NA	X	NA
7445 AC Innovations in Science and Technology I	NA	X	NA
7550 Pre-Engineering	NA	X	NA
Transportation, Distribution and Logistics			
Endorsement Name	NOCTI	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7001 Automotive Technology	NA	Expired Credential	X
7007 Diesel Equipment Technology	NA	Expired Credential	X
7010 Collision Repair	NA	Expired Credential	X
7453 AC Global Logistics and Supply Chain Management I	NA	X	NA
7006 Power Equipment Technology	X	NA	NA
7960 Commercial Driver's License	NA	NA	X
7180 Transportation Technology	NA	X	NA

TABLE 3.1 Content Written and Performance Test and Industry Credentials Section

1

NOCTI exam requirements

AGRICULTURE, FOOD AND NATURAL RESOURCES

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

ARCHITECTURE AND CONSTRUCTION

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

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

7175 Broadcasting Technology, NOCTI #5186 -- Television Production
7132 Communication Technology, NOCTI #5186 -- Television Production
7014 Graphic Arts, NOCTI #5261 – Advertising and Design

Education and Training

7317 Early Childhood Education, NOCTI #5183 -- Early Childhood Education and Care **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

HOSPITALITY AND TOURISM

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

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

7710 Criminal Justice, NOCTI #5269 – Criminal Justice

MANUFACTURING

7070 Industrial Equipment Maintenance, NOCTI #5174 – Industrial Maintenance Mechanics
7092 Millwork and Cabinet, NOCTI #5905 Cabinetmaking
7223 FANUC Operator, FCR-01 FANUC Certified Robot - Operator 1

TRANSPORTATION

7006 Power Equipment Technology, NOCTI #5277 – Small Engine Technology
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TABLE 3.2 Content Written and Performance Test and Industry Credentials

Section 2

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

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

7710 Criminal Justice	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
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TABLE 4: CTE Permanent Advanced Credentials

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE Programs of Study	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
7223 FANUC Operator	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Successful completion of the FANUC Operator Training for Materials Handling and IR Vision
7225 Drone Ground and Flight Training	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Successful passage of the FAA Part 107 exam from the Federal Aviation Administration
7969 Coding, App, and Game Design	<p>Hold a Career and Technical Education Certificate or a Professional Teaching Certificate</p> <p>Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.</p>	<p>Coding, App, and Game Design 1 (WV Learn Class) AND one of the following MTA Certification (Microsoft Technology Associate):</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

<p><u>0560 Business Education</u></p>	<p><u>Hold a Career and Technical Education Certificate or a Professional Teaching Certificate</u></p>	<p><u>Successful completion of professional development approved by the WVDE</u></p>
<p><u>0064 Personal Finance Education Specialist</u></p>	<p><u>Hold a Career and Technical Education Certificate in the following:</u></p> <ul style="list-style-type: none"> • 7721 Business Management & Administration Industry • 7722 Finance Industry • 7315 Lodging, Travel and Tourism • 0227 Parks and Recreation Management • 7970 Computer Technology – Application Software • 7727 Marketing Industry <p><u>or a Professional Teaching Certificate</u></p>	<p><u>Successful completion of professional development approved by the WVDE</u></p>
<p>7702 Coordinator of Career and Work Skills Training</p>	<p>Career and Technical Education Certificate or a Professional Teaching Certificate</p>	<p>Complete a minimum of Two years (4000 clock hours) of related wage-earning experience in a non-teaching position.</p>
<p>7707 Careers in Education</p>	<p>Valid Certificate. Hold a Career and Technical Education Certificate or a Professional Teaching Certificate for appropriate grade level.</p>	<p>Complete professional development and/or coursework related to Careers in Education training programs in Career and Technical Education as specified by the WVDE.</p>

7705 Gateway	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Project Lead the Way Core Training
7442 AC Aerospace Engineering II	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7443 AC Aerospace Engineering III	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7444 AC Aerospace Engineering IV	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7446 AC Innovations in Science and Technology II	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7447 AC Innovations in Science and Technology III	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7448 AC Innovations in Science and Technology IV	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7450 AC Informatics II	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7451 AC Informatics III	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute

7452 AC Informatics IV	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7454 AC Global Logistics and Supply Chain Management II	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7455 AC Global Logistics and Supply Chain Management III	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7456 AC Global Logistics and Supply Chain Management IV	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7462 AC Clean Energy II	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7463 AC Clean Energy III	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7464 AC Clean Energy IV	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7466 AC Energy Power and Engineered Systems II	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7467 AC Energy Power and Engineered Systems III	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute
7468 AC Energy Power and Engineered Systems IV	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Southern Regional Education Board Summer Training Institute

7563 Digital Electronics (PLTW)	Hold a teaching certification in the following area: 7550 Pre-Engineering	Project Lead the Way Core Training
7564 Engineering Design and Development (PLTW)	Hold a teaching certification in the following area: 7550 Pre-Engineering	Project Lead the Way Core Training
7562 Computer Integrated Manufacturing (PLTW)	Hold a teaching certification in the following area: 7550 Pre-Engineering	Project Lead the Way Core Training
7561 Civil Engineering and Architecture (PLTW)	Hold a teaching certification in the following area: 7550 Pre-Engineering	Project Lead the Way Core Training
7560 Aerospace Engineering (PLTW)	Hold a teaching certification in the following area: 7550 Pre-Engineering	Project Lead the Way Core Training
7565 Environmental Sustainability (PLTW)	Hold a teaching certification in the following area: 7550 Pre-Engineering	Project Lead the Way Core Training

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

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S
7041 Practical Nursing	Practical Nursing Part-Time Instructor	<p>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</p>	West Virginia Board of Examiners for Registered Nurses
7042 Nursing Aide	HE 0761 Certified Nursing Assistant	<p>WAGE-EARNING experience. - two years with a related bachelor’s degree or two years with a related 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>	West Virginia Board of Examiners for Registered Professional Nurses

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S
7603 Phlebotomist	HE 0773 Phlebotomy Technician	Complete two years (4,000 clock hours) of wage-earning experience as a certified phlebotomy technician, as registered supportive personnel who works under the direct supervision of a medical lab assistant or director. AND Valid Certified Phlebotomy certification	American Society of Phlebotomy (ASPT) National Health Career Association or American Medical Technologist Association (AMTA)
7611 EKG Technician	HE 0810 Electrocardiograph Technician	Complete two years (4,000 clock hours) of wage-earning experience as a certified as a Electrocardiograph Technician, as registered supportive personnel who works who work in a clinic, hospital, emergency services or other health care facility.	Hold a valid certificate or license from the appropriate state and/or national organization or agency, when applicable
7960 Commercial Driver's License	TR 2170 Truck Driver Training	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	West Virginia Department of Transportation, Division of Motor Vehicles
7440 Business Prep	BM 1400 Business Prep Any Business Education course listed in the adult programs of study	Wage-Earning Experience—Complete three years (6,000 clock hours) of successful wage-earning experience in the occupation for which licensure is requested	None

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S
7953 Cabling Technology	MA 2165 Cabling Technology	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	C-Tech
7108 Heavy Equipment Operator	AR9107 Heavy Equipment Operator	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	WVU Extension Service

EMS and Fire Service Endorsements:

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENTIALING ORGANIZATION/S
7047 Emergency Medical Services	EMS (Public Service Training)	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.	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
7087 Fire Service Training	Fire Service Training (Public Service Training)	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.	American Red Cross or American Heart Association or American Safety & Health Institute or Emergency Care & Safety Institute or National Safety Council WV Fire Commission