West Virginia Career and Technical Education Endorsement and Testing Manual

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/TECHNICIAL CERTIFICATE^{1,2,3,4,5}

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 1: REQUIRED BASIC SKILLS TESTS

TABLE 2: WAGE EARNING EXPERIENCE REQUIRED FOR CLUSTER AREA ENDORSEMENTS

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONSREQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATIONINDUSTRY CREDENITALING ORGANIZATION/S7215 ARCGIS			
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7963 Taxidermyand Technical Education7964 Environmental Technology and	7962 Pet Grooning		WVDE approved course
7963 Taxidermy 7964 Environmental Technology and			work related to Career
7964 Environmental Technology and			and Technical Education
	7963 Taxidermy		
Management	7964 Environmental Technology and		
	Management		

ARCHITECTURE AND CONSTRUCTION CLUSTER

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

Architecture and Construction Cluster

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7083 Air Conditioning and Refrigeration	ICE Industry Competency Exam Entry Level Residential Heating & Cooling Technician	Industry Competency Exams (ICE) Certified Testing Center
	EPA Section 608 Technician Certification, Universal Certification	US Environmental Protection Agency (EPA) EPA Testing Center
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		
7027 Building Maintenance & Operations		
7028 General Building Construction (House Construction)		
7022 Masonry		
7073 Operation/Maintenance-Heavy Equipment		
7023 Plumber and Pipefitting	WV Master Plumber's License	West Virginia Division of Labor

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

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

Arts, A/V Technology and Communications Cluster

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7175 Broadcasting Technology		
7012 Commercial Art		
7026 Painting-Decorating		
7132 Communication Technology		
7014 Graphic Arts		
7015 Offset Printing		

BUSINESS MANAGEMENT AND ADMINISTRATION

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

Business Management and Administration Cluster

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7721 Business Management &		
Administration Industry		

FINANCE

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

Finance Cluster

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7722 Finance Industry		

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

	WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S			
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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.

7457 AC Health Informatics I		Complete Professional
7458 AC Health Informatics II		Development and/or WVDE
7459 AC Health Informatics III		approved course work related
7460 AC Health Informatics IV		to Career and Technical
7460 AC Health Informatics IV		Education.
	Valid West Virginia License	West Virginia Board of
7048 Health Assistant	as Registered Nurse (RN).	Examiners for Registered
		Professional Nurses
	Valid West Virginia License	West Virginia Board of
7042 Nursing Aide	Valid West Virginia License as Registered Nurse (RN)	Examiners for Registered
-	as Registered Nurse (RN)	Professional Nurses

WVBE ENDORSEMENTS AND		REQUIRED INDUSTRY	INDUSTRY CREDENITALING
ENDORSEMENT CODES AWARDED	FOR	CREDENTIALS FOR CTE	ORGANIZATION/S
CTE CONCENTRATIONS		CERTIFICATION	
		AND 1 year (2000 hours)	
7402 M /		long term care experience.	
7403 Veterinary Technician		Educated from an	
		American Veterinary	
		Medical Association	
		accredited Veterinary Technology program	
		and currently a Licensed	
		Veterinary Technician	West Virginia State
		or Registered Veterinary	Veterinary Board and
		Technician or Certified	American Association of
		Veterinary technician or	Veterinarian State Boards.
		hold credential by	
		passing the Veterinary	
		Technician National	
		Exam prior to change of	
		1/1/2010.	
Wage Earning Experience – Comp professional nurse 3 years immedie enrolled in a baccalaureate degree professional nurse which should in	iately p progra	receding employment as a tam; have at least 3 years of a	faculty member; have or be experience as a registered
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professional nurse 3 years immedien of the second s	iately p progra nclude are clim sion or mplete th prac ve been a hygio cation f rican M xamina Certi	receding employment as a fum; have at least 3 years of 2 years of patient side nursical facility; 1 year experies a dministration; and present Valid unencumbered West Virginia License as Registered Nurse (RN) two years (4,000 clock hour tice, i.e., scheduling, billing n within the past three years ant program or is a graduate ene program of a college, schor the Dental Assistant N Iedical Technician Organization and the WV Dental Bo	faculty member; have or be experience as a registered ing care experience in an nce in one or more of the t evidence of continuing West Virginia Board of Examiners for registered Professional Nurses urs) of wage earning and chair side assisting. The s and beyond the training with a degree in dental chool or dental department of a lational Board, or a Registered ation or has passed the bard examination. Holds a valid certification from the Dental Assistant National Board, or a Registered Dental Assistant
professional nurse 3 years immedienrolled in a baccalaureate degree professional nurse which should in acute, intermediate or long term catfollowing areas: teaching, superviseducation. 7041 Practical Nursing (LPN) Wage-Earning Experience – Corexperience in a dental office with most recent experience must haperiod. Has completed a dental hygiene from an approved dentatuniversity. Holds a valid certific Dental Assistant from the Amernational board dental hygiene experience experience experience experience dental hygiene experience den	iately p progra nclude are clim sion or mplete th prac ve been a hygio cation f rican M xamina Certi	receding employment as a fam; have at least 3 years of e 2 years of patient side nursi- tical facility; 1 year experien- administration; and present Valid unencumbered West Virginia License as Registered Nurse (RN) two years (4,000 clock hou- tice, i.e., scheduling, billing n within the past three years ant program or is a graduate ene program of a college, sc from the Dental Assistant N Iedical Technician Organiza- tion and the WV Dental Bo	faculty member; have or be experience as a registered ing care experience in an nce in one or more of the t evidence of continuing West Virginia Board of Examiners for registered Professional Nurses urs) of wage earning and chair side assisting. The s and beyond the training with a degree in dental chool or dental department of a lational Board, or a Registered ation or has passed the bard examination. Holds a valid certification from the Dental Assistant National Board, or a

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FC	DR	REQUIRED INDUSTRY CREDENTIALS FOR CTE	INDUSTRY CREDENITALING
CTE CONCENTRATIONS		CERTIFICATION	ORGANIZATION/S
			has passed the national board dental hygiene examination and the WV Dental Board examination.
Wage-Earning Experience – Complete as a dental laboratory technician as a completed a dental laboratory technic dental prosthesis in accordance with must have been within the past three	quali ology a de	fied by education, training of education program and what what is the second seco	or experience who has ho fabricates, repairs or alters a The most recent experience
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 t healthcare facility working with filtering experience must have been within the	g dat past i	a, medical records and/or hea three years and beyond the t	alth informatics. The most recent
implementation, data mining) in this sp	ecial	ization may count toward a ty	
, , ,	ecial	ization may count toward a ty	wo years of the work experience experience requirements. 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
implementation, data mining) in this sp requirements. Relevant teaching exper 7724 Health Informatics	rienco	ization may count toward a tw e may count as equal to work 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.	wo years of the work experience experience requirements. 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.
implementation, data mining) in this sp requirements. Relevant teaching exper 7724 Health Informatics Wage-Earning Experience – Complete t medical office or out-patient clinic with medical transcription, and clinical proce	wo y ectal	ization may count toward a tw e may count as equal to work 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. ears (4,000 clock hours) of wa erience in all aspects of medic	wo years of the work experience experience requirements. 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. age earning experience in a cal office practice, i.e. insurance, minations. The most recent
implementation, data mining) in this sp requirements. Relevant teaching exper 7724 Health Informatics Wage-Earning Experience – Complete t medical office or out-patient clinic with	wo y ectal	ization may count toward a tw e may count as equal to work 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. ears (4,000 clock hours) of wa erience in all aspects of medic	wo years of the work experience experience requirements. 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. age earning experience in a cal office practice, i.e. insurance, minations. The most recent

WVBE ENDORSEMENTS AND	REQUIRED INDUSTRY	
		INDUSTRY CREDENITALING
ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	CREDENTIALS FOR CTE CERTIFICATION	ORGANIZATION/S
		Nadical Assistants (AANAA)
	Valid West Virginia License	Medical Assistants (AAMA),
	as Registered Nurse (RN)	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.
Wage-Earning Experience – Complete two y		
include emergency room or emergency med	lical care with a licensed EMS	e ,
		Hold a current West Virginia
		Paramedic Certification
		including a current
	Medical Emergency	Cardiopulmonary Resuscitation
7050 Medical Emergency Preparedness	Preparedness	(CPR) Instructor Certification,
	riepareuriess	current First Aid Instructor
		Certification and Current
		Emergency Medical Technician
		(EMT) Instructor Certification.
Wage-Earning Experience – Complete two y	ears (4,000 clock hours) of wa	age earning experience as a
certified/registered pharmacy technician whether the second s	nich means as a registered sup	oportive personnel who work
under the direct supervision of a pharmacis	t or as a registered nurse. T	he most recent experience
must have been within the past three yea	rs and beyond the training p	period.
^	Valid Certified Pharmacy	West Virginia Board of
	Technician (CPhT) or a	Pharmacy for Pharmacy
7608 Pharmacy Technician	Registered Pharmacy	Technician. West Virginia Board
	Technician (RPT)) or a	of Examiners for Registered
	Registered Nurse	Professional Nurses
Wage-Earning Experience – Complete two y		age earning experience as a
certified phlebotomy technician, as a register		
supervision of a medical lab assistant or dire		
experience in a clinical laboratory in a hospi	, , ,	
of routine laboratory samples.	····	
		American Society of
		Phlebotomy (ASPT) National
	Valid Certified	Health Career Association
	Phlebotomy certification	or
7603 Phlebotomist	or a Medical Laboratory	American Medical Technologist
	Technician or a Registered	Association (AMTA) also known
	Nurse	as American Medical
		Technologist (AMT)
1		

WVBE ENDORSEMENTS AND	REQUIRED INDUSTRY	
ENDORSEMENT CODES AWARDED FOR	CREDENTIALS FOR CTE	INDUSTRY CREDENITALING
CTE CONCENTRATIONS	CERTIFICATION	ORGANIZATION/S
		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
Wage-Earning Experience – Complete two y	ears (4000) hours of wage ear	rning experience in a clinical
laboratory in a hospital, physician's office of	-	
bacteriology, blood-banking, hematology, u	,	ost recent experience must have
been within the past three years and beyon	d the training period.	
		(AMT) or Medical Lab Assistant
		Certification (CMLA) or
7172 Lab Tech-Medical	Medical Lab Technician	American Society of Clinical Pathology (ASCP) or
		International Society for
		Clinical Lab Technology (ISCLT)
	Hold a Professional	
	Teaching Certificate	Complete WVDE sponsored
7614 Foundations of Health Science	endorsed for biology,	professional development
	chemistry, general science	yearly
Wage-Earning Experience – Complete two y	or health	go corning experience in a
hospital or out-patient clinic with experience		
procedures such as treatments, examinatio		
have been within the past three years and b		
· · · ·	Certified Respiratory	
7606 Respiratory Therapy	Therapist	Licensed by the West Virginia
	or Registered Respiratory	Board of Respiratory Therapy
	Therapist	
Wage-Earning Experience – Complete two y		
hospital or out-patient clinic with experience		
procedures, surgical instrumentation, and o familiar with central supply certification required to the supply certification required to the supply certification required to the supply certification and the supply certif		
have been within the past three years and b		employment experience must
nave seen within the past timet years and t	Certified Surgical	
	Technologist or Certified	National Board of Surgical
7607 Surgical Technologist	Technologist/Surgical	Technology and Surgical
	Assistant	Assisting
Wage-Earning Experience – Complete four y		
continuous work experience in the occupati	on for which licensure is requ	ested; OR

WVBE ENDORSEMENTS AND
ENDORSEMENT CODES AWARDED FOR
CTE CONCENTRATIONS

REQUIRED INDUSTRY
CREDENTIALS FOR CTE
CERTIFICATION

INDUSTRY CREDENITALING ORGANIZATION/S

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.

	National Certification of	Hold a valid certificate from the
7625 Massage Therapy	Therapeutic Massage and	West Virginia Massage Therapy
	Body Work or Federation	Board and valid
	of State Massage Therapy	Cardiopulmonary Resuscitation
	Board	(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.

7615 Other Health Occupations		Hold a valid certificate or license from the appropriate state and/or national organization or agency, when applicable	
7966 Biomedical Science	Project Lea Certificate	ad the Way	Project Lead the Way College Affiliates

HOSPITALITY AND TOURISM

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

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7095 Culinary Arts	ServSafe for Managers	National Restaurant Association
7315 Lodging, Travel and Tourism		
7320 Event Planning and Design Production		
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		

HUMAN SERVICES

Wage earning experience required for the career and technical education alternatively certified teacher in Human Services 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. WVBE ENDORSEMENTS AND **REQUIRED INDUSTRY** INDUSTRY CREDENITALING ENDORSEMENT CODES AWARDED FOR CREDENTIALS FOR CTE

CERTIFICATION

CTE CONCENTRATIONS

ORGANIZATION/S

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 s	WV Board of Barbers & Cosmetologists
7473 Barbering	Barber	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	WV Board of Barbers and Cosmetologists
7723 Hair Styling	Hair Stylist	WV Board of Barbers and Cosmetologists

INFORMATION TECHNOLOGY

Wage earning experience required for the career and technical education alternatively certified teacher in Information Technology

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7212 Computer Technology - System	CompTIAA+ 220-901 CompTIA Network+ 220-902	Computing technology Industry Association (CompTIA)
7970 Computer Technology – Application Software	Current MOS Certification Exams – Word, Excel, PowerPoint, Access	Microsoft Certifications via Certiport
7121 Data Processing Programming		
7134 Electro-Mechanical Technology		
7449 AC Informatics I		
7450 AC Informatics II		Complete professional development and/or WVDE-approved coursework related to
7451 AC Informatics III		Career and Technical Education.
7452 AC Informatics IV		
7954 Networking	CISCO Certified Network Associate (CCNA)	CISCO
7968 Computer Science	Project Lead the Way Certificate	Project Lead the Way College Affiliates

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

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

Law and Public Safety, Corrections and Security

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7710 Criminal Justice	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

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 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.

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
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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
7050 Medical Emergency Preparedness	WV EMT-Basic or Paramedic Certification; CPR Instructor Certification First Aid Certification; Field Based Experience in EMT Training	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, National Safety Council

MANUFACTURING

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

Manufacturing

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.

as equal to work experience requi	Temento.	
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7000 Automotive Machining		
7016 Industrial Control Systems		
7164 Computer Integrated Manufacturing		
7131 Electronics Technology	СЕТа	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		
7470 AC Advanced		Complete professional development and/or
Manufacturing II		WVDE-approved coursework related to
7471 AC Advanced		Career and Technical Education.
Manufacturing III		
7472 AC Advanced		
Manufacturing IV		
7181 Manufacturing Technology		
7092 Millwork and Cabinet		
7052 Welding	SMAW Plate and GMAW Plate in the 2G, 3G and 4G positions	American Welding Society (AWS) or WVDE Welding Certification
7221 Robotics		
7953 Cabling Technology	C-Tech Certification	C-Tech

MARKETING

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

Marketing

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7727 Marketing Industry		

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.

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
0608 Technology Education		
7441 AC Aerospace Engineering I		
7442 AC Aerospace Engineering		
11		Complete professional development and/or
7443 AC Aerospace Engineering		WVDE-approved coursework related to
111		Career and Technical Education.
7444 AC Aerospace Engineering		
IV		
7461 AC Clean Energy I		Complete professional development and/or
7462 AC Clean Energy II		WVDE-approved coursework related to
7463 AC Clean Energy III		Career and Technical Education.

7464 AC Clean Energy IV		
7465 AC Energy, Power, and		
Engineered Systems I		
7466 AC Energy, Power, and		Complete professional development and/or
Engineered Systems II		Complete professional development and/or WVDE-approved coursework related to
7467 AC Energy, Power, and		Career and Technical Education.
Engineered Systems III		
7468 AC Energy, Power, and		
Engineered Systems IV		
7445 AC Innovations in Science		
and Technology I		
7446 AC Innovations in Science		Complete professional development and/or
and Technology II		WVDE-approved coursework related to
7447 AC Innovations in Science		Career and Technical Education.
and Technology III		
7448 AC Innovations in Science		
and Technology IV		
7550 Pre-Engineering	Project Lead the Way Certificate	Project Lead the Way College Affiliates

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.

equal to work experience requirement		
WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION	INDUSTRY CREDENITALING ORGANIZATION/S
7001 Automotive Technology	Engine Performance Brakes Electrical/Electronics Systems Suspension/Steering	National Institute for Automotive Service Excellence (ASE)
7007 Diesel Equipment Technology	Diesel Engines Suspension/Steering Brakes Electrical/Electronics Systems Preventative Maintenance Inspection	National Institute for Automotive Service Excellence (ASE)
7010 Collision Repair	Structural Non-Structural Painting/Refinishing Mechanical/Electrical	National Institute for Automotive Service Excellence (ASE)
7453 AC Global Logistics and Supply Chain Management I 7454 AC Global Logistics and Supply Chain Management I 7455 AC Global Logistics and Supply Chain Management I 7456 AC Global Logistics and		Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
Supply Chain Management I 7098 Materials Distribution 7006 Power Equipment Technology	Commercial Driver's	West Virginia Department of Transportation,
7960 Commercial Driver's License 7180 Transportation Technology	License (CDL)	Division of Motor Vehicles

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 Appendix C.

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 Appendix C., 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.

Endorsement Name	NOCTI Exam	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
AGRICULTURE, FOOD	AND NATURAL RES	OURCES	
7720 Agriculture Industry	Х		
7410 Forestry	Х	Х	
7215 ARCGIS			
7726 Mining Extraction		Х	
7430 Oil/Gas Extraction and Distribution		Х	
7962 Pet Grooming			
7963 Taxidermy			
7964 Environmental Technology and			
Management			
ARCHITECTURE AND	CONSTRUCTION CL		
7083 Air Conditioning and Refrigeration		Expired	Х
		Credential	
7105 Civil Technology		Х	
7030 Electrical Technology			Х
7021 Carpentry	Х	Х	
7027 Building Maintenance & Operations	Х	Х	
7028 General Building Construction (House	Х	Х	
Construction)			
7022 Masonry	Х	Х	
7073 Operation/Maintenance-Heavy Equipment	Х	Х	
7023 Plumber and Pipefitting			Х
ARTS, A/V TECHNOLO	GY AND COMMUNI	CATIONS	
7175 Broadcasting Technology	Х	Х	
7012 Commercial Art	Х	Х	
7026 Painting-Decorating		Х	
7132 Communication Technology	Х	Х	
7014 Graphic Arts	Х	Х	
7015 Offset Printing	Х	Х	
BUSINESS MANAGEI		ATION	
7721 Business Management & Administration	Х		
Industry			
	INANCE		
7722 Finance	X		
	ENCE EDUCATION	X	
7457 AC Health Informatics I		X	
7458 AC Health Informatics II		X	
7459 AC Health Informatics III		X	
7460 AC Health Informatics IV		х	v
7048 Health Assistant			Х

TABLE 3 Content Written and Performance Test and Industry Credentials

Endorsement Name	NOCTI Exam	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7042 Nursing Aide			X
7403 Veterinary Technician			Х
7041 Practical Nursing (LPN)			Х
7043 Dental Assistant			Х
7171 Dental Lab Technician			х
7724 Health Informatics			Х
7045 Medical Assistant			Х
7050 Medical Emergency Preparedness			Х
7608 Pharmacy Technician			Х
7603 Phlebotomist			Х
7172 Lab Tech-Medical			Х
7614 Foundations of Health Science			Х
7606 Respiratory Therapy			Х
7607 Surgical Technologist			Х
7625 Massage Therapy			Х
7615 Health Occupations		Х	
7966 Biomedical Science			
HOSPITALI	TY AND TOURISM		
7095 Culinary Arts	Х	Х	
7315 Lodging, Travel and Tourism	Х		
7320 Event Planning and Design Production			
0227 Parks and Recreation Management		Х	
7967 Baking and Pastry	Х		
HUM	AN SERVICES		
7185 Social Services Occupation		Х	
7065 Cosmetology			Х
7473 Barbering			Х
7317 Early Childhood Education	Х	Х	
7627 Direct Support Professional		X	
7626 Personal Fitness and Wellness Training		X	
7316 Personal Organizer		X	
7714 Prevention Support Specialist		Х	X
7728 Nail Technology	Nail Technician		X
7723 Hair Styling	Hair Stylist		Х
		V	
7212 Computer Technology – System	X	X	
7970 Computer Technology – Application	Х	Х	
Software		v	
7121 Data Processing Programming		X	
7134 Electro-Mechanical Technology		X	
7449 AC Informatics I		X	
7450 AC Informatics II		Х	

Endorsement Name	NOCTI	Exam	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7451 AC Informatics III			Х	
7452 AC Informatics IV			Х	
7954 Networking				Х
7968 Computer Science				
LAW AND PUBLIC SAF	ETY, CORRE	CTIONS AN	ND SECURITY	
7710 Criminal Justice	Х		Х	
7040 Emergency Services				Х
7060 Industrial Fire Management				Х
7050 Medical Emergency Preparedness				Х
	ANUFACTUR	ING		
7000 Automotive Machining			Х	
7016 Industrial Control Systems			Х	
7164 Computer Integrated Manufacturing			Х	
7131 Electronics Technology			Х	
7069 Hydraulics/Pneumatics			Х	
7070 Industrial Equipment Maintenance	Х		Х	
7051 Machine Tool Technology			Х	
7469 AC Advanced Manufacturing I			Х	
7470 AC Advanced Manufacturing II			Х	
7471 AC Advanced Manufacturing III			Х	
7472 AC Advanced Manufacturing IV			Х	
7181 Manufacturing Technology				
7092 Millwork and Cabinet	Х		Х	
7052 Welding				Х
7221 Robotics			Х	
7953 Cabling Technology			Х	
	MARKETING	ì		
7727 Marketing Industry				
SCIENCE, TECHNOLOGY	, ENGINEERI	NG AND N		
0608 Technology Education			X	
7441 AC Aerospace Engineering I			Х	
7442 AC Aerospace Engineering II			Х	
7443 AC Aerospace Engineering III			Х	
7444 AC Aerospace Engineering IV			Х	
7461 AC Clean Energy I			X	
7462 AC Clean Energy II			X	
7463 AC Clean Energy III			X	
7464 AC Clean Energy IV			X	
7465 AC Energy, Power, and Engineered Syste	ms		Х	
7466 AC Energy, Power, and Engineered Syste	ms		Х	
7467 AC Energy, Power, and Engineered Syste	ms		Х	
III				

Endorsement Name	ΝΟርΤΙ	Exam	1 Year to Earn Industry Credential	Industry Credential Required Prior to Being Hired
7468 AC Energy, Power, and Engineered Systems IV			Х	-
7445 AC Innovations in Science and Technology I			Х	
7446 AC Innovations in Science and Technology			Х	
7447 AC Innovations in Science and Technology			Х	
7448 AC Innovations in Science and Technology IV			Х	
7550 Pre-Engineering			Х	
TRANSPORTATION, DI	STRIBUT	ION AND LO	DGISTICS	
7001 Automotive Technology			Expired Credential	Х
7007 Diesel Equipment Technology			Expired Credential	Х
7010 Collision Repair			Expired Credential	Х
7453 AC Global Logistics and Supply Chain Management I			Х	
7454 AC Global Logistics and Supply Chain Management I			Х	
7455 AC Global Logistics and Supply Chain Management I			Х	
7456 AC Global Logistics and Supply Chain Management I			Х	
7098 Materials Distribution	х		х	
7006 Power Equipment Technology	X		x	
7960 Commercial Driver's License				Х
7180 Transportation Technology			Х	

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 CONCENTRATIONS

7720 Agriculture Industry, NOCTI #3063

7410 Forestry, NOCTI # 3037 Forest Products and Processing

ARCHITECTURE AND CONSTRUCTION

7021 Carpentry, NOCTI #5165 -- Carpentry

7027 Building Maintenance & Operations, NOCTI #5164 – Building Trades Maintenance

7028 General Building Construction (House Construction), NOCTI #5163 – Building Construction Occupations

7022 Masonry, NOCTI #4125 -- Construction Masonry-Brick

7073 Operation/Maintenance-Heavy Equipment, NOCTI #3046 -- Heavy Equipment Maintenance and Repair

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

7175 Broadcasting Technology, NOCTI #3005 -- Audio-Visual Communications

7012 Commercial Art, NOCTI #5161—Advertising and Design

7132 Communication Technology, NOCTI # 3005 -- Audio-Visual Communications

7014 Graphic Arts, NOCTI #4242 -- Graphic Production Technology

7015 Offset Printing, NOCTI #4242 -- Graphic Production Technology

BUSINESS MANAGEMENT AND ADMINISTRATION

7721 Business Management & Administration Industry, NOCTI #5260 – Administrative Assisting

FINANCE

7722 Finance, NOCTI #5180 - Accounting

HOSPITALITY AND TOURISM

7095 Culinary Arts, NOCTI #5167 – Commercial Foods

7315 Lodging, Travel and Tourism, NOCTI #1288 -- Travel and Tourism

7967 Baking and Pastry, NOCTI #4010 – Retail Commercial Baking

HUMAN SERVICES

7317 Early Childhood Education, NOCTI #4017 -- Early Childhood Education and Care-Advanced **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 #4017 (Early Childhood Education and Care-Advanced)

INFORMATION TECHNOLOGY

7212 Computer Technology – System, NOCTI #5182 – Computer Repair Technology 7970 Computer Technology – Application Software, NOCTI #5260 – Administrative Assisting

LAW AND PUBLIC SAFETY, CORRECTIONS AND SECURITY

7710 Criminal Justice, NOCTI #5169 – Criminal Justice

MANUFACTURING

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

7092 Millwork and Cabinet, NOCTI #3014 Cabinet Making

TRANSPORTATION

7098 Materials Distribution, NOCTI #2071 – Logistics Technology-Distribution Center Services

7006 Power Equipment Technology, NOCTI #4068 – Small Engine Technology

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

AGRICULTURE, FOOD AND NATURAL RESOURCES

WVBE ENDORSEMENTS AND ENDORSEMENT CODES AWARDED FOR CTE CONCENTRATIONS	REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION
7720 Agriculture Industry	Complete WVDE-approved program
7215 ARCGIS	None
7430 Oil/Gas Extraction and Distribution	None
7726 Mining Extraction	40 hr Surface Mining and 80 hr underground Mining Certificates
7962 Pet Grooming	Complete WVDE-approved program
7963 Taxidermy	None
7964 Environmental Technology and Management	None

ARCHITECTURE AND CONSTRUCTION

	AHRI Industry Competency Exam Entry Level Residential	
With Expired Credential	Heating & Cooling Technician	
7083 Air Conditioning and Refrigeration	Recovery & Recycling Certification Air-Conditioning	
	Refrigeration Institute (ARI)	
	Certified Drafters – Architectural or Certified Drafters	
7105 Civil Technology	Mechanical	
	Or Certified Drafters - Civil	

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

7445 AC Innovations in Science and Technology I	Complete WVDE-approved program			
7446 AC Innovations in Science and Technology II	Complete WVDE-approved program			
7447 AC Innovations in Science and Technology III	Complete WVDE-approved program			
7448 AC Innovations in Science and Technology IV	Complete WVDE-approved program			
7026 Painting-Decorating	None			
BUSINESS MANAGEMENT & ADMINISTRATION				
7721 Business Management & Administration Industry	None			
F	INANCE			
7722 Finance Industry	None			

HEALTH SCIENCE EDUCATION

7457 AC Health Informatics I	Complete WVDE-approved program	
7458 AC Health Informatics II	Complete WVDE-approved program	
7459 AC Health Informatics III	Complete WVDE-approved program	
7460 AC Health Informatics IV	Complete WVDE-approved program	
7615 Health Occupations	Complete WVDE-approved program	
7966 Biomedical Science	Project Lead the Way Certificate	
HOSPITALITY AND TOURISM		
Cardiopulmonary Resuscitation Instructor Certification,		
0227 Parks and Recreation Management	and First Aid	
7320 Event Planning and Design Production	None	
7967 Baking and Pastry	None	
HI MAN SERVICES		

HUMAN SERVICES

7185 Social Services Occupation	Valid Cardiopulmonary Resuscitation (CPR) and First Aid Cards		
7315 Lodging, Travel and Tourism	None		
7627 Direct Support Professional	Valid Cardiopulmonary Resuscitation (CPR) and First Aid		
	Cards		
7626 Personal Fitness and Wellness Training	Valid Cardiopulmonary Resuscitation (CPR) and First Aid		
	Cards		
7316 Personal Organizer	None		
7714 Drovention Support Specialist	Valid Cardiopulmonary Resuscitation (CPR) and First Aid		
7714 Prevention Support Specialist	Cards		
INFORMATION TECHNOLOGY			
7212 Computer Technology - System Comp Tia A+ 220-901, Comp Tia A+ 220-902			
7970 Computer Technology- Application	None		
Software			
7121 Data Processing Programming	None		
7134 Electro-Mechanical Technology	None		
7449 AC Informatics I	Complete WVDE-approved program		
7450 AC Informatics II	Complete WVDE-approved program		
7451 AC Informatics III	Complete WVDE-approved program		
7452 AC Informatics IV	Complete WVDE-approved program		
7968 Computer Science	Project Lead the Way Certificate		

MANUFACTURING

MANUFACTORING				
7725 Manufacturing Industry	None			
7000 Automotive Machining	None			
7016 Industrial Control Systems	None			
7164 Computer Integrated Manufacturing	None			
7131 Electronics Technology	СЕТа			
7069 Hydraulics/Pneumatics	None			
7051 Machine Tool Technology	Machining Level 1			
7469 AC Advanced Manufacturing I	Complete WVDE-approved program			
7470 AC Advanced Manufacturing II	Complete WVDE-approved program			
7471 AC Advanced Manufacturing III	Complete WVDE-approved program			
7472 AC Advanced Manufacturing IV	Complete WVDE-approved program			
7221 Robotics	None			
7953 Cabling Technology	C-Tech Certification			
SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS				
7461 AC Clean Energy I	Complete WVDE-approved program			
7462 AC Clean Energy II	Complete WVDE-approved program			
7463 AC Clean Energy III	Complete WVDE-approved program			
7464 AC Clean Energy IV	Complete WVDE-approved program			
7465 AC Energy, Power, and Engineered Systems I	Complete WVDE-approved program			
7466 AC Energy, Power, and Engineered Systems II	Complete WVDE-approved program			
7467 AC Energy, Power, and Engineered Systems III	Complete WVDE-approved program			
7468 AC Energy, Power, and Engineered Systems IV	Complete WVDE-approved program			
0608 Technology Education	None			
75500 5 1 1				

Project Lead the Way Certificate

7550 Pre-Engineering

TRANSPORTATION, DISTRIBUTION AND LOGISTICS

With Expired Credential 7001 Automotive Technology	Engine Performance, Brakes, Electrical/Electronics Systems Suspension/Steering	
With Expired Credential 7007 Diesel Equipment Technology	Diesel Engines, Suspension/Steering, Brakes, Electrical/Electronics, Systems, Preventative Maintenance, Inspection	
Expired Credential 7010 Collision Repair	Structural Analysis & Damage Repair, Non-Structural Analysis & Damage Repair, Painting/Refinishing, Mechanical/Electrical	
7006 Power Equipment Technology	None	
7453 AC Global Logistics and Supply Chain Management I	Complete WVDE-approved program	
7454 AC Global Logistics and Supply Chain Management II	Complete WVDE-approved program	
7455 AC Global Logistics and Supply Chain Management III	Complete WVDE-approved program	
7456 AC Global Logistics and Supply Chain Management IV	Complete WVDE-approved program	
7098 Materials Distribution	None	
7180 Transportation Technology	None	

TABLE 3.3 Content Written and Performance Test and Industry Credentials

Section 3 Mandatory credentials prior to being hired that meet NOCTI exam requirements

REQUIRED INDUSTRY CREDENTIALS FOR CTE CERTIFICATION
AHRI Industry Competency Exam, Entry Level Residential
Heating & Cooling Technician
Recovery & Recycling Certification , Air-Conditioning
Refrigeration Institute (ARI)
Master Electrician License
WV Master Plumber's License

ARCHITECTURE AND CONSTRUCTION

HEALTH SCIENCE EDUCATION

7403 Veterinary Technician	Licensed Veterinarian, or Veterinary Technician	
7048 Health Assistant	Valid West Virginia License as Registered Nurse (RN)	
	Valid West Virginia License as Registered Nurse (RN) AND one	
7042 Nursing Aide	year (2000 hours) long term care experience.	
7041 Practical Nursing (LPN)	Valid West Virginia License as Registered Nurse (RN)	
7043 Dental Assistant	Certified Dental Assistant	
7171 Dental Lab Technician	Dental Lab Technician Or Dentist	
	Medical Assistant or Valid West Virginia Licenses as Registered Nurse (RN) Or healthcare experience and hold a certification by the	
7724 Health Informatics	American Health Informatics Association Or Certified Coding Associate,	
	Certified Coding Specialist or a Registered Health Information Technician.	
7045 Medical Assistant	Medical Assistant Or Valid West Virginia License as Registered Nurse (RN)	
7050 Medical Emergency Preparedness	First Aid Certification; Field Based Experience in EMT Training	
7608 Pharmacy Technician	Certified Pharmacy Technician (CPhT)or Registered Pharmacy Technician (RPT) or West Virginia License as Registered Nurse (RN)	
7603 Phlebotomist	Valid Certified Phlebotomy certification or West Virginia License as Registered Nurse (RN)	
7172 Lab Tech-Medical	Medical Lab Technician or Certified Medical Laboratory Assistant	
7614 Foundations of Health Science	Hold a Professional Teaching Certificate endorsed for biology, chemistry, general science or health	
7606 Respiratory Therapy	Certified Respiratory Therapist or Registered Respiratory Therapist	
7607 Surgical Technologist	Certified Surgical Technologist or Certified Surgical Technologist/Surgical Assistant	

7625 Massage Therapy	National Certification of Therapeutic Massage and Body Work		
, 020 massage merapy	of Federation of State Massage Therapy Board		
7614 Foundations of Health Science	West Virginia Professional Teaching Certificate endorsed for		
	biology, chemistry, general science or health		
7966 Biomedical Science	Project Lead the Way Certificate		
HUMAN SERVICES			
7065 Cosmetology	Cosmetologists		
7473 Barbering	Barber		
7728 Nail Technology	Nail Technician		
7723 Hair Styling	Hair Stylist		
I	NFORMATION TECHNOLOGY		
7954 Networking	CISCO Certified Network Associate (CCNA) Certification		
LAW AND PUBLIC	SAFETY, CORRECTIONS AND SECURITY		
	WV EMT-Basic or Paramedic Certification; CPR Instructor		
	Certification; First Aid Certification; Field Based Experience in		
	EMT Training; Field Based Experience in fire service training;		
7040 Emergency Services	Firefighter 1 and Firefighter 2; Materials Operations Level		
	Certification		
	Certified in First Aid, EMT, or Paramedic; CPR-Instructor		
	Certification; Field Based Experience in fire service training;		
7060 Industrial Fire Management	Fire Fighter 1 and Firefighter 2; and Hazardous Materials		
	Operations Level Certifications.		
	WV EMT-Basic or Paramedic Certification; CPR Instructor		
7050 Medical Emergency Preparedness	Certification; First Aid Certification; Field Based Experience in		
	EMT Training		
7052 Welding	SMAW Plate and GMAW Plate in the 2G, 3G and 4G positions		
SCIENCE, TECHNOLO	DGY, ENGINEERING AND MATHEMATICS		
7550 Pre-Engineering	Project Lead the Way Certificate AND Bachelor's Degree		
TRANSPORTAT	ION, DISTRIBUTION AND LOGISTICS		
7001 Automotivo Technology	Engine Performance, Brakes, Electrical/Electronics Systems,		
7001 Automotive Technology	Suspension/Steering		
	Diesel Engines, Suspension/Steering, Brakes,		
	Electrical/Electronics Systems		
7007 Diesel Equipment Technology	Preventative Maintenance, Inspection		
	Structural Analysis & Damage Repair, Non-Structural Analysis		
7010 Collision Repair	& Damage Repair, Painting/Refinishing, Mechanical/Electrical		
7960 Commercial Driver's License	CDL License		

TABLE 4: CTE Permanent Advanced Credentials

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
7969 Coding, App, and Game Design	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	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
0560 Business Education	Hold a valid West Virginia Professional Certificate endorsed at a minimum for one of the following: 0710 Marketing Education or 0700 Distributive Education.	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.
0561 Marketing Education	Hold a valid West Virginia Professional Certificate; endorsed for one, at a minimum, of the following: 0400 Business Principles; 0419 Business Principles including Business	Successful completion of fifteen (15) clock hours of WVDE-approved professional development and successful completion of assignments related to

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	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.	Marketing Education programs offered by the WVDE.
7702 Coordinator of Career and Work Skills Training	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.	Complete a minimum of one year (2,000 clock hours) of related wage earning experience in a non-teaching position.
7707 Careers in Education	Valid Certificate. Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Complete professional development and/or coursework related to Careers in Education training programs in Career and Technical Education as specified by the WVDE.
7703 ORACLE	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7704 Certified Internet Webmaster	Hold a Career and Technical Education Certificate or a Professional Teaching Certificate.	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7705 Gateway	Hold a Career and Technical Education Certificate or a	Complete professional development and/or WVDE-approved

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS Professional Teaching	PROFESSIONAL DEVELOPMENT/ COURSE WORK coursework related to
	Certificate.	Career and Technical Education.
7441 AC Aerospace Engineering I	Hold a teaching certification in one of the following areas: 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 2500 Physics 2910 Earth/Space Science 2710 Chemistry/Physics 7550 Pre-Engineering	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7442 AC Aerospace Engineering II	Hold a teaching certification in one of the following areas: 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 2500 Physics 2910 Earth/Space Science 2710 Chemistry/Physics 7550 Pre-Engineering	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7443 AC Aerospace Engineering III	Hold a teaching certification in one of the following areas: 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 2500 Physics 2910 Earth/Space Science 2710 Chemistry/Physics 7550 Pre-Engineering	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7444 AC Aerospace Engineering IV	Hold a teaching certification in one of the following areas: 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 2500 Physics 2910 Earth/Space Science 2710 Chemistry/Physics 7550 Pre-Engineering	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
7445 AC Innovations in Science and Technology I	Hold a teaching certification in one of the following areas: 2500 Physics 2600 Biological Sciences 2700 Chemistry 2705 Chemistry through Chemistry I 2710 Chemistry/Physics 2800 Physical Science 2900 General Science 2910 Earth/Space Science 2915 General/Physical Science 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7446 AC Innovations in Science and Technology II	Hold a teaching certification in one of the following areas: 2500 Physics 2600 Biological Sciences 2700 Chemistry 2705 Chemistry through Chemistry I 2710 Chemistry/Physics 2800 Physical Science 2900 General Science 2910 Earth/Space Science 2915 General/Physical Science 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7447 AC Innovations in Science and Technology III	Hold a teaching certification in one of the following areas: 2500 Physics 2600 Biological Sciences 2700 Chemistry	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	2705 Chemistry through Chemistry I 2710 Chemistry/Physics 2800 Physical Science 2900 General Science 2910 Earth/Space Science 2915 General/Physical Science 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education	
7448 AC Innovations in Science and Technology IV	Hold a teaching certification in one of the following areas: 2500 Physics 2600 Biological Sciences 2700 Chemistry 2705 Chemistry through Chemistry I 2710 Chemistry/Physics 2800 Physical Science 2900 General Science 2910 Earth/Space Science 2915 General/Physical Science 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7449 AC Informatics I	Hold a teaching certification in one of the following areas: 0400 Business Principles 0419 Business Principles including Business Mathematics 0500 Secretarial Studies or Occupation Commerce 0519 Secretarial Studies including Business Mathematics	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	0560 Business Education Specialist 0561 Marketing Education Specialist 0600 Business Education 0603 Business Education/Marketing 0608 Technology Education 7037 Industrial Electronics 7121 Data Processing Programming] 7212 Computer Technology	
7450 AC Informatics II	Hold a teaching certificationin one of the following areas:0400 Business Principles0419 Business Principlesincluding BusinessMathematics0500 Secretarial Studies orOccupation Commerce0519 Secretarial Studiesincluding BusinessMathematics0560 Business EducationSpecialist0561 Marketing EducationSpecialist0600 Business Education0603 BusinessEducation/Marketing0608 Technology Education7037 Industrial Electronics7121 Data ProcessingProgramming]7212 Computer Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7451 AC Informatics III	Hold a teaching certification in one of the following areas: 0400 Business Principles 0419 Business Principles including Business Mathematics 0500 Secretarial Studies or Occupation Commerce	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	0519 Secretarial Studies including Business Mathematics 0560 Business Education Specialist 0561 Marketing Education Specialist 0600 Business Education 0603 Business Education/Marketing 0608 Technology Education 7037 Industrial Electronics 7121 Data Processing Programming] 7212 Computer Technology	
7452 AC Informatics IV	Hold a teaching certificationin one of the following areas:0400 Business Principles0419 Business Principlesincluding BusinessMathematics0500 Secretarial Studies orOccupation Commerce0519 Secretarial Studiesincluding BusinessMathematics0560 Business EducationSpecialist0561 Marketing EducationSpecialist0600 Business Education0603 BusinessEducation/Marketing0608 Technology Education7037 Industrial Electronics7121 Data ProcessingProgramming]7212 Computer Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7453 AC Global Logistics and Supply Chain Management I	Hold a teaching certification in one of the following areas: 7098 Materials Distribution 7180 Transportation Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
7454 AC Global Logistics and Supply Chain Management II	Hold a teaching certification in one of the following areas: 7098 Materials Distribution 7180 Transportation Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7455 AC Global Logistics and Supply Chain Management III	Hold a teaching certification in one of the following areas: 7098 Materials Distribution 7180 Transportation Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7456 AC Global Logistics and Supply Chain Management IV	Hold a teaching certification in one of the following areas: 7098 Materials Distribution 7180 Transportation Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7457 AC Health Informatics I	Hold a teaching certification in one of the following areas: 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 7212 Computer Technology 7604 Medical Transcription 7610 Medical Records	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7458 AC Health Informatics II	Hold a teaching certification in one of the following areas: 0400 Business Principles	Complete professional development and/or WVDE-approved coursework related to

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	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 7212 Computer Technology 7604 Medical Transcription 7610 Medical Records	Career and Technical Education.
7459 AC Health Informatics III	Hold a teaching certificationin one of the following areas:0400 Business Principles0419 Business Principlesincluding BusinessMathematics0500 Secretarial Studies orOccupation Commerce0519 Secretarial Studiesincluding BusinessMathematics0560 Business EducationSpecialist0561 Marketing EducationSpecialist0600 Business Education0603 BusinessEducation/Marketing7212 Computer Technology7604 Medical Transcription7610 Medical Records	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7460 AC Health Informatics IV	Hold a teaching certification in one of the following areas: 0400 Business Principles 0419 Business Principles including Business Mathematics	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	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 7212 Computer Technology 7604 Medical Transcription 7610 Medical Records	
7461 AC Clean Energy I	Hold a teaching certificationin one of the following areas:2500 Physics2600 Biological Sciences2700 Chemistry2705 Chemistry throughChemistry I2710 Chemistry/Physics2800 Physical Science2900 General Science2910 Earth/Space Science2915 General/PhysicalScience1900 Mathematics1905 Math Through Algebra I0608 Technology Education1800 Industrial Arts1801 General Shop1802 Technical Education7030 Electrical Technology7031 Industrial Electricity7035 General ElectricalOccupations7083 Air Condition andRefrigeration7131 Electronics Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7462 AC Clean Energy II	Hold a teaching certification in one of the following areas: 2500 Physics	Complete professional development and/or WVDE-approved

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	2600 Biological Sciences 2700 Chemistry 2705 Chemistry through Chemistry I 2710 Chemistry/Physics 2800 Physical Science 2900 General Science 2910 Earth/Space Science 2915 General/Physical Science 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 7030 Electrical Technology 7031 Industrial Electricity 7035 General Electrical Occupations 7083 Air Condition and Refrigeration 7131 Electronics Technology	coursework related to Career and Technical Education.
7463 AC Clean Energy III	Hold a teaching certification in one of the following areas: 2500 Physics 2600 Biological Sciences 2700 Chemistry 2705 Chemistry through Chemistry I 2710 Chemistry/Physics 2800 Physical Science 2900 General Science 2910 Earth/Space Science 2915 General/Physical Science 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 7030 Electrical Technology 7031 Industrial Electricity	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

		PROFESSIONAL
WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	DEVELOPMENT/
AWARDED FOR CTE CONCENTRATIONS		COURSE WORK
	7035 General Electrical	
	Occupations	
	7083 Air Condition and	
	Refrigeration	
	7131 Electronics Technology	
7464 AC Clean Energy IV	Hold a teaching certification	
	in one of the following areas:	
	2500 Physics	
	2600 Biological Sciences	
	2700 Chemistry	
	2705 Chemistry through	
	Chemistry I	
	2710 Chemistry/Physics	
	2800 Physical Science	
	2900 General Science	
	2910 Earth/Space Science	Complete professional
	2915 General/Physical	development and/or
	Science	WVDE-approved
	1900 Mathematics	coursework related to
	1905 Math Through Algebra I	Career and Technical Education.
	0608 Technology Education 1800 Industrial Arts	
	1800 Industrial Arts	
	1802 Technical Education	
	7030 Electrical Technology	
	7031 Industrial Electricity	
	7035 General Electrical	
	Occupations	
	7083 Air Condition and	
	Refrigeration	
	7131 Electronics Technology	
7465 AC Energy, Power, and Engineered	Hold a teaching certification	
Systems I	in one of the following areas:	
,	2500 Physics	
	2710 Chemistry/Physics	
	1900 Mathematics	Complete professional
	1905 Math Through Algebra I	development and/or
	0608 Technology Education	WVDE-approved
	1800 Industrial Arts	coursework related to
	1801 General Shop	Career and Technical
	1802 Technical Education	Education.
	7030 Electrical Technology	
	7031 Industrial Electricity	
	7035 General Electrical	
	Occupations	

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL DEVELOPMENT/ COURSE WORK
	7131 Electronics Technology	
7466 AC Energy, Power, and Engineered Systems II	Hold a teaching certification in one of the following areas: 2500 Physics 2710 Chemistry/Physics 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 7030 Electrical Technology 7031 Industrial Electricity 7035 General Electrical Occupations 7131 Electronics Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7467 AC Energy, Power, and Engineered Systems III	Hold a teaching certification in one of the following areas: 2500 Physics 2710 Chemistry/Physics 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 7030 Electrical Technology 7031 Industrial Electricity 7035 General Electrical Occupations 7131 Electronics Technology	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.
7468 AC Energy, Power, and Engineered Systems IV	Hold a teaching certification in one of the following areas: 2500 Physics 2710 Chemistry/Physics 1900 Mathematics 1905 Math Through Algebra I 0608 Technology Education 1800 Industrial Arts 1801 General Shop 1802 Technical Education 7030 Electrical Technology 7031 Industrial Electricity 7035 General Electrical Occupations	Complete professional development and/or WVDE-approved coursework related to Career and Technical Education.

WVBE ADVANCED CREDENTIAL AND CODE AWARDED FOR CTE CONCENTRATIONS	CERTIFICATE REQUIREMENTS	PROFESSIONAL
		DEVELOPMENT/
		COURSE WORK
	7131 Electronics Technology	

TABLE 5: Adult Part Time Permit

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENITALING ORGANIZATION/S
7042 Nursing Aide	HE 0761 Certified Nursing Assistant	Valid West Virginia License as Registered Nurse (RN) AND 1 year, (2000 clock hours) of long term care	West Virginia Board of Examiners for Registered Professional Nurses
7603 Phlebotomist	HE 0773 Phlebotomy Technician	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	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 a registered supportive personnel who works who works 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	Commercial Driver's License (CDL) License	West Virginia Department of Transportation, Division of Motor Vehicles
7440 Business Prep	BM1400 Business Prep Any Business Education course listed in the adult programs of study	None	Wage-Earning Experience. – Compete three years (6,000 clock hours) of successful wage-earning experience in the occupation for

WVBE ADULT PART TIME PERMIT	PART TIME ADULT PROGRAM	CERTIFICATE REQUIREMENTS	INDUSTRY CREDENITALING ORGANIZATION/S
			which licensure is requested
7953 Cabling Technology	MA 2165 Cabling Technology	C-Tech Certification	C-Tech

7047 Emergency Medical Technician	EMT (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