

FIRE SERVICE APPLICATIONS I ARTICULATION

Pierce County Careers Connection Dual Credit Articulation Agreement

Upon completion of a full year of high school or equivalent to the following competencies:

- The student shall demonstrate the ability to locate written documents, policies, procedures, and standards or code materials. (Standard: 5.1.2 NFPA 1001, 2008 Edition) Given a scenario and Department Standard Operating Procedures, NFPA Standards, or Code Books and department reference materials, the student will demonstrate the ability to:
 - Locate the appropriate department standard operating procedure, NFPA standard or code.
- The student shall be able to prepare to respond correctly in a fire department apparatus and to correctly dismount at the emergency scene. (Standard: 5-3.2 NFPA 1001, 2008 Edition) Given personal protective clothing and other necessary personal protective equipment, the student shall demonstrate the ability to:
 - Determine that the vehicle is not in motion.
 - Mount fire apparatus using handrails and steps.
 - Close door, safety bar, and gate to cab or compartment.
 - Sit fasten seat belt and notify driver.
 - Correctly use hearing protection if indicated or present.
 - When dismounting, wait for orders before leaving apparatus.
 - Ensure that vehicle is completely stopped before disconnecting restraints and preparing to leave apparatus.
 - Look for hazards before stepping off vehicle.
 - Safely step from vehicle using handrails and steps.
- The student shall be able to lift and carry and object. (Standard: 5-3.2 NFPA 1001, 2008 Edition) Given an object to lift and carry, the student shall demonstrate the ability to:
 - Approach the load and size it up.
 - Place feet close to the object to be lifted.
 - Bend knees, and get a good handhold.
 - Lift the load straight up smoothly and evenly.
 - Lift the object into the carrying position, making no turning or twisting movements.
 - Turns body with changes of foot position.
 - Set load down, using leg and back muscles and bending knees.
- The student shall be able to prepare to respond correctly in a fire department apparatus and to correctly dismount at a high flow traffic emergency scene. (Standard: 5-3.2 NFPA 1001, 2008 Edition) Given personal protective clothing and other necessary personal protective equipment, the student shall demonstrate the ability to:
 - Determine that vehicle is not in motion.
 - Mount fire apparatus using handrails and steps.
 - Close door, safety bar, and gate to cab or compartment.
 - Sit, fasten seat belt and notify driver.
 - Correctly use hearing protection if indicated or present.
 - When dismounting, wait for orders before leaving apparatus.
 - Ensure the vehicle is completely stopped before disconnecting restraints and preparing to leave the apparatus.
 - Prepare to dismount on downstream or curb side of the apparatus if possible.
 - Look for traffic through window.
 - Partially open the door and check for traffic before dismounting.
 - Exit the apparatus when safe to do so and safely step from vehicle using handrails and steps.
 - Close door (if present), assuring you are in a protected area from oncoming traffic.
- The student shall be able to prepare to respond correctly in a fire department apparatus and to correctly dismount at a traffic area with downed electrical wires. (Standard: 5-3.2 NFPA 1001, 2008 Edition) Given personal protective clothing and other necessary personal protective equipment, the student shall demonstrate the ability to:
 - Ensure vehicle is not in motion.
 - Mount fire apparatus using handrails and steps.
 - Close door, safety bar, and gate to cab or compartment.
 - Sit, fasten seat belt and notify driver.
 - Correctly use hearing protection if indicated or present.
 - When dismounting, wait for orders before leaving apparatus.
 - Ensure that vehicle is completely stopped before disconnecting restraints and preparing to leave apparatus.
 - Prepare to dismount on downstream or curb side of the apparatus if possible.
 - Look for traffic through window.
 - Partially open the door and examine the area for downed electrical wires or for wires touching the apparatus.
 - Exit apparatus when safe to do so and safely step from the vehicle using handrails and steps.
 - Close door, the student ensures that he/she is in a protected area.

- The student shall be able to operate in a high traffic environment so that procedures are followed, personal protective clothing is worn, a protective work area is established, and traffic is controlled. (Standard: 5-3.3 NFPA 1001, 2008 Edition) Given personal protective clothing, other necessary personal protective equipment, and traffic and scene control devices, the student shall demonstrate the ability to:
 - Wear all personal protective clothing necessary for working in a traffic area. If a Class III vest is not worn/available, the student must state that the reflective tape of the structural firefighting gear is in good condition.
 - If available, place a warning sign 100 to 1500 feet upstream of the blocking apparatus.
 - Establish a one lane taper 75-100 foot in length from the blocking apparatus upstream using cones and/or flares (must first check area for flammable material before using flares).
 - Establish a working zone downstream from the blocking apparatus using cones and/or flares (must first check area for flammable material before using flares).
 - Always face approaching traffic when working upstream of the blocking apparatus.
 - Establish flagging station and demonstrate the following flagging signals.
 1. Stopping traffic
 2. Releasing traffic
 3. Slowing traffic
 4. Directing traffic to another lane
 - Always face approaching traffic when picking up the traffic control devices.

- The student shall be able to operate in a downed electrical wire environment so that procedures are followed, personal protective clothing is worn, and a protective work area is established. (Standard: 5-3.3 NFPA 1001, 2008 Edition) Given personal protective clothing and scene control devices, the student shall demonstrate the ability to:
 - Establish a normal danger zone in a downed electrical wire hazard according to the following instructions. Using a radius of one span of lines, mark a circle around each of the power poles on each side of the broken or downed line.
 - Enlarge the danger zone around a downed electrical wire hazard (if the wire is in contact with a conductive material such as a fence, gate, building, etc.)
 - Using scene and/or traffic control devices, mark the danger zone.
 - Construct a traffic control zone around the area using the following:
 1. If available, place a warning sign 100 to 1500 feet upstream of the blocking apparatus (may use simulated sign)
 2. Establish a one lane taper 75 – 100 foot in length from the blocking apparatus upstream using cones and/or flares (must first check area for flammable material before using flare).
 3. Establish a danger zone downstream from the blocking apparatus using cones and/or flares (must first check area for flammable material before using flares.)

- The student shall be able to properly don personal protective clothing in one minute and to prepare the personal protective clothing for reuse. (Standard: 5-1.2 NFPA 1001, 2008, Edition) Given personal protective clothing (boots, pants, coat, hood, gloves, and helmet), the student shall demonstrate the ability to:
 - "Donning:" Don pants and boots - with all fasteners secured and suspenders in place.
 - Don hood covering ears, head, and neck.
 - Don coat – including storm flap closed and collar up and secured.
 - Don helmet and secure with chinstrap.
 - Don gloves with no skin exposed.
 - Complete above correctly within one minute.
 - "Doffing:" Place all equipment in a ready state for reuse.

- The student, while operating at a simulated fire scene or cab of apparatus, and in full protective clothing, shall be able to correctly don and activate the SCBA in one minute. (Standard: 5-3.1 NFPA 1001, 2008 Edition) Given a SCBA and in full protective clothing, the student shall be able to: (Time will begin when SCBA donning starts and ends when the SCBA is correctly donned with all protective clothing correctly in place and the student is on air.)
 - Correctly don SCBA including checking amount of air in cylinder and operation of low air alarm.
 - Correctly don face piece including checking seal and operation of exhalation valve.
 - Activate and check PASS device.
 - Have all personal protective clothing correctly in place.
 - Correctly accomplished all of the above in one (1) minute.

- The student shall be able to inspect a SCBA to show that it is in a safe condition for immediate use. (Standard: 5-5.1 NFPA 1001, 2008 Edition) Given a Fire Department SCBA, the student shall demonstrate the ability to:
 - Check straps and back pack assembly.
 - Check condition and hydrostatic test date of cylinder.
 - Turn the cylinder valve on fully.
 - Compare that two pressure gauges are within 100 PSI of each other with high pressure SCBA.
 - Check face piece, hose, and exhalation valve by inhaling and exhaling.
 - Check regulator operation by connecting to face piece and breathing.
 - Check by-pass operation and ensure by-pass is in the off position after testing.
 - Check low pressure alarm while bleeding the air line.
 - Return all straps, valves, and components back to ready state.
 - Check the air cylinder is in off position and for adequate air pressure (90% - full).
 - Student states will tab unit out of service and/or notify supervisor of any irregularities found.

- The student shall demonstrate cleaning and sanitizing a SCBA. (Standard: 5-5.1 NFPA 1001, 2008 Edition) Given a Fire Department SCBA and proper cleaning supplies, the student shall demonstrate the ability to:
 - Inspect all rubber/elastomeric parts for cracks and other damage.
 - Wash the assembly in warm water containing an approved cleaner/disinfectant.
 - Rinse with clear, warm water.
 - Air dry or dry with a lint free cloth (never uses a paper towel).
 - Ensure the proper operation of the exhalation valve.
 - Wipe off the entire unit using a soft cloth and an approved cleaner/disinfectant.
 - SCBA Harness: Wipe with mild soap or commercial cleaning agent.
 - Rinse Thoroughly.
 - Allow to air dry.
 - The student, while operating in a simulated hazardous environment, shall be able to use controlled breathing techniques and perform emergency procedures in event of SCBA failure. (Standard: 5-3.1 NFPA 1001, 2008 Edition) Given personal protective clothing and SCBA, the student shall be able to perform the following: (Note: The evaluator will select at least one procedure from conservation of air, one procedure from SCBA failure, one procedure from depletion of air supply, and alarm mode from pass device use.)
 - Conservation of Air: Demonstrate controlled breathing when instructed to (e.g.: Inhale through the nose, exhale through the mouth, and control rate of breathing.)
 - Demonstrate skip breathing when instructed to (e.g.: Take a regular breath and hold, take another breath, exhale and repeat.)
 - SCBA Failure: Emergency procedures when air is not flowing into the face piece:
 1. Check that cylinder is fully open.
 2. Close mainline, if present.
 3. Open bypass slowly.
 4. Close bypass after each breath.
 5. Open bypass for next breath.
 6. Exit hazardous area rapidly.
 - Emergency procedures when face piece is no longer intact:
 1. Breathe directly from low pressure hose or regulator.
 2. Make tight seal around hose or regulator with mouth.
 3. Breathe through mouth and exhale through nose.
 4. Exit hazardous area rapidly.
 - Depletion of Air Supply: Emergency procedures when out of air with no air re-supply available:
 1. Activate pass device.
 2. Establish filter breathing while staying as low as possible.
 3. Exit hazardous area rapidly.
 - Emergency procedures when out of air with a full cylinder available.
 1. Doff backpack.
 2. Close cylinder valve and release pressure.
 3. Disconnect hose from cylinder.
 4. Remove depleted cylinder.
 5. Replace with cylinder containing air.
 6. Connect hose to cylinder
 7. Turn on cylinder.
 8. Re-don back pack.
 - Emergency procedures when out of air with transfill or buddy breathing capability available:
 1. Attach transfill hose or buddy breather hose to both SCBA units: exit hazardous area rapidly.
 - Activate PASS device in alarm mode/panic button.
- The student, while operating as a member of a team at a simulated fire scene, shall be able to operate in a hazardous environment, keeping track of his/her air supply so that the hazardous area is exited prior to depletion of the air supply. (Standard: 5-3.1 NFPA 1001, 2008 Edition) Given SCBA, hand light, assortment of forcible entry tools, team member, scenario with hazardous environment, and full protective equipment, the student shall be able to:
 - Determine air supply available when entering hazardous atmosphere.
 - Monitor the air supply available while in hazardous atmosphere.
 - Make decision to leave hazardous atmosphere with team member(s) before depletion of air supply.
 - Notify supervisor by radio that air supply is low and state team will be exiting the hazardous environment.
 - Exit hazardous atmosphere before depletion of air supply.
- The student shall be able to identify the need to exit a hazardous area, develop a plan of egress, communicate the plan to supervisor and subordinate, and exit the hazardous area. (Standard: 5-3.5 NFPA 1001, 2008 Edition) Given an area of obscured visibility, a team member, hand light, assortment of forcible entry tools, portable radio, charged houseline or guideline, and in full protective equipment, the students shall demonstrate the ability to:
 - Identify the need to exit the hazardous environment.
 - Communicate and coordinate egress with team member.
 - Communicate egress plan with immediate supervisor by radio.
 - Follow guideline or hose line to point of egress.
 - Maintain team integrity.
 - Exit area before air supply is exhausted.
- The student, becoming disoriented, shall be able to communicate the situation by radio and exit the hazardous area. (The student shall be in full protective equipment.) (Standard: 5-3.5 NFPA 1001, 2008 Edition) Given an area of obscured visibility, portable radio, and a charged hose line placed in the structure so it can be followed out if found, the student (after being led around to become disoriented) shall demonstrate the ability to:
 - Remain calm and consider actions.
 - Communicate situation by radio utilizing emergency traffic.
 - Remain on hands and knees.

- Activate PASS device.
 - Attempt to retrace route to outside.
 - A. If hose line is found, determine direction to exit and follow line out. B. If wall is located, remain in contact and follow making consistent turns checking for doors and windows to exit.
 - Locate exit and retreat from building before air supply is exhausted.
- The student shall demonstrate filling an SCBA cylinder from a cascade system. (Standard: 5-5.1 NFPA 1001, 2008 Edition)
Given a Fire Department SCBA cylinder and a cascade system, the student shall demonstrate the ability to:
- Inspect cylinder for damage and Hydrostatic Test Date.
 - Place cylinder in shielded filling station and attach fill hose.
 - Set regulator to proper psi.
 - Open cylinder, appropriate bank, and fill line.
 - Fill cylinder at 300-600 psi per minute.
 - When filling is complete, closes fill line and bank.
 - Close SCBA cylinder and bleed air from system.

This articulation is part of the first quarter of course work in the Fire Service program at Bates Technical College.

Secondary school/Skills Center instructors must use the textbook currently in use at Bates Technical College, Essentials of Fire Fighting, 6th ed. ISBN 978-087939509-4. Chapters 1, 2, 6 and 15.

A student earning a “B” grade or better may earn college credit at the following college:

<u>College</u>	<u>Course</u>	<u>Credits</u>
Bates Technical College	FIRES 103 (CIP Code: 43.0203)	5