WASHBURN TECH UNIVERSITY

## Technical Standards, Heating, Ventilation and Air Conditioning (HVAC)

The technical standards discussed in the following chart define performance expectations that must be met for advancement through and successful completion of the **HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) Program**. It is the policy of Washburn Tech to provide reasonable accommodations for those with disabilities, health impairments, and other disabling conditions. These standards can also be used to determine whether accommodations or modifications are necessary and have been established through consideration by faculty and consultation with the following sources: consultation with the advisory committee for the program, The Vocational Rehabilitation Act, The Americans with Disabilities Act, Dictionary of Occupational Titles, O*Net Online developed for the U.S. Department of Labor.

| ABILITY | STANDARD | Some examples of necessary activities (not all inclusive) |
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| **Physical Demands / Motor Skills** | Candidate/Student must have the ability to perform physical activities that require considerable use of your hands, arms, legs and moving your whole body. This will include:<br>• Arm-Hand Steadiness<br>• Manual Dexterity<br>• Finger Dexterity<br>• Control Precision<br>• Extent Flexibility<br>• Trunk Strength | • Have the ability to bend, stretch, twist, or reach with your body, arms, and/or legs and doing such movements as climbing, lifting, balancing, walking, stooping, and handling of materials.<br>• The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.<br>• Have the ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions<br>• Must have the ability to lift 50 lbs. of weight and be able to maneuver with a dolly. Ex: lifting a compressor, large refrigerant cylinder, or some other substantial sized piece of equipment at the work site or lifting into the vehicle.<br>• Have the ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing |
| **Critical Thinking/Sensory/ Observation/ Reasoning Skills** | • Candidate/Student must be able to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.<br>• Make observations requiring the functional use of vision, hearing, and other sensory modalities.<br>• Must be able to be attentive in the classroom, observe demonstrations and participate | • Demonstrate problem solving skills.<br>• Understand written sentences and paragraphs in work related documents.<br>• Determine causes of operating errors and deciding what to do about it.<br>• Combine pieces of information to form general rules or conclusions and to apply general rules to specific problems to produce answers that make sense.<br>• Recognize abnormal mechanical sounds.<br>• Recognize unusual smells such as motors and transformers burning. |

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| | in lab classes.<br>• Must have visual perception<br>• Must be able to problem solve and diagnose including obtaining, interpreting, and documenting data.<br>• Must be able to recognize when there is a problem or possible problem.<br>• Make themselves aware of their surroundings by using their senses. | • Seeing abnormal conditions occurring in machinery operation.<br>• Must be able to identify and follow sequential steps and processes. |
| **Behavioral / Social Skills and Professionalism** | • Candidate/Student must have sufficient personal skills for successful interactions with customers, colleagues, supervisors, and from a variety of social, emotional, cultural, and intellectual backgrounds.<br>• Must possess the emotional well-being required for use of their intellectual abilities, the exercise of sound judgment, the prompt completion of all responsibilities in the classroom and for lab projects.<br>• Must be able to adapt to ever-changing environments, display flexibility, and learn to function in the face of uncertainties and stresses which are inherent in the educational process, as well as when dealing with clients, colleagues, and industry situations.<br>• Must have the ability to develop organizational skills necessary to meet deadlines and manage time.<br>• Student will be expected to learn and apply workplace responsibilities. | • Have face-to-face discussions with individuals in work areas. Have good personal hygiene, professional conduct, and appearance.<br>• Be willing to work with others building team skills.<br>• Demonstrate attributes of empathy, integrity, concern for others, interpersonal skills, interest, and motivation.<br>• Maintain client confidentiality.<br>• Be an honest and ethical worker. Be pleasant with others and display a good-natured, cooperative attitude.<br>• Be careful about detail and thoroughness in completing work tasks.<br>• Maintain composure, keep emotions in check, control anger, and avoid aggressive behavior, even in very difficult situations |
| **Communication Skills** | • Candidate/Student must be able to communicate not only in speech but reading and writing in English.<br>• Must be sensitive to multicultural and multilingual needs<br>• Computer literate – basic computer skills | • Write legibly, a thought on paper on how an operation of training equipment occurred.<br>• Read chapters in text and manuals and answer questions on the topics at hand.<br>• Orally explain how you arrive at your completions on work stations.<br>• English communication skills for necessary interaction with faculty, peers, customers, and others orally and in writing.<br>• Must be able to utilize the basic functions of a computer and internet.<br>• Must be able to keep records of task performed. |

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| **Working Conditions** | • Candidate/Student will be working with hazardous chemicals and high voltages.<br>• Must have the ability to work in various environments.<br>• *Must meet work environment criteria at time of employment<br><br>• NOTE: At time of employment may be expected to have a resume, a valid Driver's License, be EPA certified in refrigerant handling, pass a drug test, and pass a background check | • Work with Refrigerants that will be disposed of through proper procedures and business agents. Work with Natural and Propane Gas in Heating equipment.<br>• Work with solvents, Oxy-Acetylene Torches as well as mineral and synthetic oils.<br>• Measure and work with 120, 208, 240, 277 and 480 Volts.<br>• Must be willing to perform at work stations with Safety in mind and will build on safety habits.<br>• Must be willing to work at ladder heights, in attics, basements, crawl spaces, outside in hot and cold weather, etc.<br>• Must be able to recognize and follow safety procedures.<br><br>• NOTE: Many companies have specific requirements that must be met before hiring. |

**OFFICE USE ONLY**
**Date Received**

**PLEASE COMPLETE THIS FORM AND RETURN IT TO THE INSTRUCTOR.**
TECHNICAL STANDARDS FOR ENROLLMENT IN **HEATING VENTILATION AND AIR CONDITIONING (HVAC)**
Washburn Institute of Technology

**CHECK ALL THAT APPLY**.

____ I understand the expectations, as explained on the previous page, must be for advancement through and successful completion of the program.

____ Upon admission to the program, I received a copy of the **HEATING VENTILATION AND AIR CONDITIONING (HVAC)** Technical Standards and they have been explained to me.

____ I would like to discuss the Standards checked below.

____ A. Physical Demands / Motor Skills

____ B. Critical Thinking /Sensory/Observation / Reasoning Skills

____ C. Behavioral / Social Skills and Professionalism

____ D. Communication Skills

____ E. Working Conditions

**QUESTIONS OR COMMENTS**: (If additional information, attach another page.)

**SIGNATURE** _____
**DATE**_____

**PLEASE PRINT NAME**_____

## Disability

The Assistant Director for Student Accommodations is responsible for assisting in arranging accommodations and identifying resources at Washburn Tech for individuals with disabilities. Qualified students with disabilities MUST register and provide medical documentation from a qualified licensed professional with the office to be eligible for services. New requests for accommodations should be submitted prior to the date services should begin ideally at the beginning of the semester; however, contact the Assistant Director for Student Accommodations as soon as a need may arise. The Assistant Director for Student Accommodations coordinates and assists in arranging services it deems appropriate for eligible students on a case- by-case basis related to accommodations within Washburn Tech.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

### Washburn Student Accessibility Services
### MK Hunt, Assistant Director

Location: Building A, Student Services North Phone:
785-670-3364
E-Mail: mk.hunt@washburn.edu

Non-Discrimination
Washburn University prohibits discrimination on the basis of race, color, religion, age, national origin, ancestry, disability, sex, sexual orientation, gender identity, genetic information, veteran status, marital or parental status. The following person has been designated to handle inquiries regarding the non-discrimination policies: Title IX Equal Opportunity Director, Washburn University, 1700 SW College Ave., Topeka, Kansas 66621, 785-670-1509, eodirector@washburn.edu. For general questions about Washburn University, please call 785-670-1010.