



Technical Standards

DIESEL TECHNOLOGY HEAVY DIESEL CONSTRUCTION TECHNOLOGY

Washburn Institute of Technology/Washburn Tech

The technical standards discussed in the following chart define performance expectations that must be met for advancement through and successful completion of the **Diesel Technology Program or Heavy Diesel Construction Technology**. 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)
<p>Critical Thinking/ Observation/ Reasoning Skills</p>	<p>Candidate/Student must be able to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.</p> <ul style="list-style-type: none"> • Problem Sensitivity • Deductive Reasoning • Inductive Reasoning • Information Ordering • Flex Perceptual Speed • Selective Attention • Visualization • Category Flexibility • Speed of Closure • Memorization • Originality • Response Orientation • Spatial Orientation • Mathematical Reasoning • Time Sharing • Rate Control • Number Facility • Work Independently. 	<ul style="list-style-type: none"> • The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. • The ability to apply general rules to specific problems to produce answers that make sense. • The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). • The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). • The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material • The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object. • The ability to concentrate on a task over a period of time without being distracted. • The ability to imagine how something

		<p>will look after it is moved around or when its parts are moved or rearranged.</p> <ul style="list-style-type: none"> • The ability to generate or use different sets of rules for combining or grouping things in different ways. • The ability to quickly make sense of, combine, and organize information into meaningful patterns. • The ability to remember information such as words, numbers, pictures, and procedures. • The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. • The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part. • The ability to know your location in relation to the environment or to know where other objects are in relation to you. • The ability to choose the right mathematical methods or formulas to solve a problem. • The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources). • The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene. • The ability to add, subtract, multiply, or divide quickly and correctly.
<p>Observation Skills</p>	<ul style="list-style-type: none"> • Use observation skills to inspect and test components to determine root cause of failures and determine appropriate repair procedures. 	<ul style="list-style-type: none"> • Determine readings on meters, gauges, scales, dials, EVA, and electronic scan tools. • Detect noises, vibrations, temperatures, and smells that indicate malfunctions. • Survey and select appropriate materials, tools, and equipment for maintenance and repairs. • Judge distance and spatial relationships of objects. • Recognize and interpret colors and textures of residue on parts.

<p>Motor Skills</p>	<p>Candidate/Student must have the ability to perform physical activities that require considerable use of your hands, arms, legs and moving your whole body.</p> <ul style="list-style-type: none"> • Arm-Hand Steadiness • Manual Dexterity • Finger Dexterity • Control Precision • Multi-limb Coordination • Static Strength • Extent Flexibility • Reaction Time • Trunk Strength • Gross Body Coordination • Wrist-Finger Speed • Speed of Limb Movement • Dynamic Strength • Stamina • Lifting Strength 	<ul style="list-style-type: none"> • The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position. • The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects. • The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects. • The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions. • The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion. • The ability to exert maximum muscle force to lift, push, pull, or carry objects. • The ability to bend, stretch, twist, or reach with your body, arms, and/or legs. • The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears. • 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. • The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion. • The ability to make fast, simple, repeated movements of the fingers, hands, and wrists. • The ability to quickly move the arms and legs. • The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue. • The ability to exert yourself physically over long periods of time without getting winded or out of breath. • The ability to lift 50 lbs of weight.
<p>Communication Skills</p>	<p>Candidate/Student must be able to communicate not only in speech, but reading and writing in English. This will include:</p> <ul style="list-style-type: none"> • Sensitivity • English Communication • Oral Comprehension • Oral Expression • Speech Clarity 	<ul style="list-style-type: none"> • Obtain necessary information in oral and written form. • Express information coherently in oral and written form. • Use checklists to complete work and perform inspections. • Complete job sheets clearly specifying parts, materials, and services.

	<ul style="list-style-type: none"> • Written Comprehension • Speech Recognition • Fluency of Ideas • Written Expression • 	
Professionalism and Behavioral Skills	<p>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. This will include:</p> <ul style="list-style-type: none"> • Must be able to work independently in the program. • 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. • 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. • Must have the ability to develop organizational skills necessary to meet deadlines and manage time. • Student will be expected to learn and demonstrate workplace responsibilities. • 	<ul style="list-style-type: none"> • Have face-to-face discussions with individuals in work areas. Have good personal hygiene, professional conduct and appearance. • Be willing to work with others building team skills. • Demonstrate attributes of empathy, integrity, concern for others, interpersonal skills, interest and motivation. • Maintain client confidentiality. • Be an honest and ethical worker. Be pleasant with others and display a good-natured, cooperative attitude. • Be careful about detail and thoroughness in completing work tasks. • Maintain composure, keep emotions in check, control anger, and avoid aggressive behavior, even in very difficult situations • Fulfill personal and shared responsibilities in an appropriate and timely manner. • Exercise good judgment. • Follow a safety procedure and rules of conduct for this class as well as all state and federal regulations. (May require drug testing at time of employment)
Working Conditions	<p>Candidate/Student will work:</p> <ul style="list-style-type: none"> • Exposed to Contaminants • In an Enclosed Vehicle or Equipment • Spend Time Using Your Hands to Handle, Control, or Feel Objects, Tools, or Controls • Experience Time Pressure • Have Freedom to Make Decisions • Required to Be Exact or Accurate • Spend Time Standing • Have Interaction With Others • Have Face-to-Face Discussions • Exposed to Minor Burns, Cuts, Bites, or Stings • Exposed to Sounds, Noise Levels Can Be Distracting or Uncomfortable • Exposed to Hazardous Equipment • Cramped Work Space, Awkward 	<ul style="list-style-type: none"> • Work for long periods with exposure to: • Extreme noise • Extreme heat • Sharp tools and materials • Electrical equipment • Chemicals • Dust and fumes • Machinery with moving parts • Moving objects and vehicles (CDL may be required) • Slippery and uneven surfaces • Variations in lighting and light sources

	<p>Positions</p> <ul style="list-style-type: none">• Wear Common Protective or Safety Equipment such as Safety Shoes, Glasses, Gloves, or Hearing Protection	
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**PLEASE COMPLETE THIS FORM AND RETURN IT TO THE INSTRUCTOR.
TECHNICAL STANDARDS FOR ENROLLMENT IN DIESEL TECHNOLOGY or
HEAVY DIESEL CONSTRUCTION TECHNOLOGY.**

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 **Diesel Technology or Heavy Diesel Construction Technology** program.

_____ Upon admission to the program, I received a copy of the 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 Campus Advocate is responsible for assisting in arranging accommodations and for identifying resources at Washburn Tech for persons with disabilities. Qualified students with disabilities **MUST** register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the Campus Advocate as soon as a need may arise. Depending on the accommodation request, four to eight-week lead time may be needed for timely and effective provision of services. The Campus Advocate coordinates and assists in arranging services it deems appropriate for eligible students on a case-by-case basis.

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:

The Campus Advocate

Location: Building A, room 117C

Phone: 785-670-3364

E-Mail: shelley.bearman@washburntech.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, or marital or parental status. The following person has been designated to handle inquiries regarding the non-discrimination policies: Dr. Pamela Foster, Equal Opportunity Director/Title IX Coordinator, Washburn University, 1700 SW College Ave, Topeka, Kansas 66621, 785.670.1509, odirector@washburn.edu.