

LABORATORY TECHNICIAN – WELDING

DEFINITION

Under general supervision, provides instructional support services for faculty and students of the Welding Program; prepares and sets up laboratory exercises, demonstrations, and instructional materials, equipment, and supplies; assists students and faculty in the use and operation of equipment and materials related to welding.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Dean, Technology and Health. Exercises no direct supervision of staff. Provides technical and functional direction and training to student workers.

CLASS CHARACTERISTICS

This is a journey-level classification responsible for conducting a variety of instructional support activities to ensure student learning. Incumbents perform the full range of duties as assigned, working independently, and exercising judgment and initiative. Incumbents at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of assigned area of responsibility. This classification is distinguished from other laboratory technicians by having subject matter expertise in welding.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

- Prepares and sets up laboratory exercises, demonstrations, and instructional materials; monitors laboratory environment; organizes, arranges, stocks, and distributes materials, equipment, and supplies.
- Troubleshoots and repairs broken machines and maintains welding equipment; ensures that all equipment and machines are in safe and operational condition.
- Designs and fabricates components for the welding laboratory, including tables, frames, fixtures, and welding booths.
- Processes and cuts metal coupons for student use.
- Fabricates and processes testing plates for Structural Steel Certification program; prepares plates for destructive testing.
- Provides instructional support services for the Welding Program; assists in instructional demonstrations of welding procedures and techniques; explains related principles, practices, procedures, methods, materials, terminology, tools, machinery, and equipment.
- Works with faculty to ensure class agendas are met.
- Maintains accurate logs, reports, and records of work performed and materials and equipment used.
- Monitors, orders, receives, stores, and maintains adequate inventory levels of supplies and equipment as directed.
- Networks with steel industries and companies for metal donations.
- Learns and applies emerging technologies and, as necessary, to perform duties in an efficient, organized, and timely manner.
- Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Terminology, techniques, equipment, materials, principles, theories, practices, and procedures related to the Welding Program.
- General methods and procedures for preparing course materials and laboratory exercises and demonstrations used in welding courses.
- Set-up, operation, demonstration, and maintenance of various tools and equipment used in welding and fabrication work.
- Troubleshoot and determine appropriate action in the maintenance and repair of equipment and machinery.
- Methods, practices, and techniques of student learning and instruction.
- Modern office practices, methods, and computer equipment and applications related to the work.
- Record keeping principles and procedures.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, students, and District staff, including individuals of various ages, disabilities, various socio-economic and ethnic groups.

Skills & Abilities to:

- Explain principles, practices, procedures, methods, materials, tools, terminology, and equipment related to the welding program.
- Assist students and faculty in the use and operation of welding and fabrication equipment and materials.
- Create an engaging and positive learning in a laboratory or other learning environments.
- Demonstrate proper use and maintenance of equipment, materials, and supplies used in welding and fabrication work.
- Read, interpret, and apply a wide variety of technical information from manuals, specifications, blueprints, and schematics.
- Interpret, apply, and explain applicable District policies, rules, and regulations related to areas of responsibility.
- Maintain tools and equipment in a clean working condition providing for proper security.
- Estimate and order required supplies and equipment.
- Establish and maintain a filing, record keeping, and tracking systems.
- Organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Understand scope of authority in making independent decisions.
- Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to an Associate's degree from a regionally accredited college in welding or a related field and the ability to demonstrate ability to weld at an acceptable level of welding competence.

Licenses and Certifications:

None.

PHYSICAL DEMANDS

Must possess mobility to work in a laboratory/classroom environment and in the field; strength, stamina, and mobility to perform medium to heavy physical work, to operate varied welding and fabrication tools, equipment, and machinery; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. The job involves fieldwork requiring frequent walking and standing in operational areas to perform work and to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned equipment. Incumbents in this classification bend, stoop, kneel, reach, and climb to perform work. Employees must possess the ability to lift, carry, push, and pull materials and objects, typically weighing up to 50 pounds, and occasionally heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in a laboratory/classroom and in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, dust, fumes, and allergens, hazardous physical substances, mechanical and electrical hazards, and moving equipment and machinery. Employees may interact with staff and/or students in interpreting and enforcing departmental policies and procedures.