

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 assigned managerial personnel. Exercises no direct supervision of staff. Provides technical and functional direction and training to temporary employees.

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)

1. Prepares and sets up laboratory exercises, demonstrations, and instructional materials; monitors laboratory environment; organizes, arranges, stocks, and distributes materials, equipment, and supplies.
2. Troubleshoots and repairs broken machines and maintains welding equipment; ensures that all equipment and machines are in safe and operational condition.
3. Designs and fabricates components for the welding laboratory, including tables, frames, fixtures, and welding booths.
4. Processes and cuts metal coupons for student use.
5. Fabricates and processes testing plates for Structural Steel Certification program; prepares plates for destructive testing.
6. 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.
7. Works with faculty to ensure class agendas are met.
8. Maintains accurate logs, reports, and records of work performed and materials and equipment used.
9. Monitors, orders, receives, stores, and maintains adequate inventory levels of supplies and equipment as directed.
10. Networks with steel industries and companies for metal donations.

11. Promotes an environment of belonging as it relates to diversity, equity, inclusion, social justice, anti-racism, and accessibility.
12. Provides quality customer service when interacting with the public, vendors, students, and College staff, including individuals from minoritized groups.
13. Supports and abides by federal, state, local policies, and Board Policies and Administrative Procedures.
14. Participates on committees, task forces, and special assignments, including, but not limited to Screening and Selection Committees and mandated trainings as required.
15. Prepares and delivers oral presentations related to assigned areas as required.
16. Performs other related or preceding classification duties as assigned.

QUALIFICATIONS

Knowledge of:

1. Principles and practices of supporting a diverse, equitable, inclusive, socially just, anti-racist, and accessible academic and work environment.
2. Terminology, techniques, equipment, materials, principles, theories, practices, and procedures related to the Welding Program.
3. General methods and procedures for preparing course materials and laboratory exercises and demonstrations used in welding courses.
4. Set-up, operation, demonstration, and maintenance of various tools and equipment used in welding and fabrication work.
5. Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
6. Troubleshoot and determine appropriate action in the maintenance and repair of equipment and machinery.
7. Methods, practices, and techniques of student learning and instruction.
8. Modern office practices, methods, and computer equipment and applications related to the scope of responsibility.
9. Record-keeping principles and procedures.
10. Techniques for effectively representing the College in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.
11. Techniques for providing a high level of customer service by effectively interacting with the public, vendors, students, and College staff, including individuals of various ages, disabilities, socio-economic levels and ethnic groups.

Skills & Abilities to:

1. Advocate for and communicate the College's vision and commitment to creating a diverse, equitable, inclusive, socially just, anti-racist, and accessible academic and work environment.
2. Participate in addressing gaps in diversity, equity, inclusion, social justice, anti-racism, and accessibility in the recruitment and retention of staff.
3. Participate in providing resources and support towards the goal of a diverse, equitable, inclusive, socially just, anti-racist, and accessible academic and work environment.

4. Explain principles, practices, procedures, methods, materials, tools, terminology, and equipment related to the welding program.
5. Assist students and faculty in the use and operation of welding and fabrication equipment and materials.
6. Create an engaging and positive learning in a laboratory or other learning environments.
7. Demonstrate proper use and maintenance of equipment, materials, and supplies used in welding and fabrication work.
8. Read, interpret, and apply a wide variety of technical information from manuals, specifications, blueprints, and schematics.
9. Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, and regulations.
10. Maintain tools and equipment in a clean working condition providing for proper security.
11. Estimate and order required supplies and equipment.
12. Establish and maintain a filing, record keeping, and tracking systems.
13. Organize own work, set priorities, and meet critical time deadlines.
14. Operate modern office equipment including computer equipment and software applications programs.
15. Communicate effectively through various modalities.
16. Learn and apply emerging technologies and, as necessary, to perform duties in an efficient, organized, and timely manner.
17. Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures; understand scope of authority in making independent decisions.
18. Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

1. Equivalent to an associate's degree from a regionally or nationally accredited college in welding or a related field; and
2. One (1) full-time equivalent year of experience in welding, electrical, mechanical, or related maintenance and repair work.
OR
1. Equivalent to the completion of the twelfth (12th) grade supplemented by college-level welding courses; and
2. Two (2) full-time equivalent years of experience in welding, electrical, mechanical, or related maintenance and repair work.

Desirable Qualifications:

1. Experience working with policies and procedures relating to diversity, equity, inclusion, social justice, anti-racism, and accessibility preferably in a minority serving institution such as Hispanic Serving Institution (HSI) and Asian American and Native American Pacific Islander-Serving Institution (AANAPISI); OR
2. Experience with participation in programs relating to diversity, equity, inclusion, social justice, anti-racism, and accessibility preferably in a minority serving institution such

as Hispanic Serving Institution (HSI) and Asian American and Native American Pacific Islander-Serving Institution (AANAPISI).

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. Incumbents 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

Incumbents 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. Incumbents may interact with staff and/or students in interpreting and enforcing departmental policies and procedures.

Amended: 7/2023; 8/2024