

**BOARD OF REGENTS
STATE OF IOWA
REGENT MERIT SYSTEM**

Class Title: Sheet Metal Mechanic II

Class Code: 5192

Pay Grade: 212

GENERAL CLASS DESCRIPTION:

Under general supervision performs journeyman tasks in the construction, installation and repair of sheet metal articles in varied applications including but not limited to: cast iron, stainless steel, brass, copper, aluminum, mild steel, galvanized and titanium.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES:

1. Performs all characteristic duties and responsibilities of a class Sheet Metal Mechanic I.
2. Performs other duties as required or assigned, including functional guidance of Sheet Metal Mechanic I classification employees.
3. Fabricates and repairs commercial kitchen articles such as food containers, pots, pans, waste pails, dippers, drain boards, stovepipes, troughs, racks and metal doors. Solders broken metal joints and seams.
4. Designs, fabricates and installs stairways, railings, landings, ladders and mezzanines to OSHA safety standards.
5. Shapes and sizes metal items using lathes, shapers, power saws, milling machines, drill presses and other metal-working power equipment by using taps, dies, files, and other similar hand tools; checks completed work using micrometers, dial gauges, calipers and other precision measuring instruments.
6. Conducts a variety of audible, visual and mechanical tests and determines the operational status of air flow through HVAC systems, and diagnoses to determine what type of modification devices to be used i.e. turning vanes, dampers, isolation dampers, extensions, and pipe sizing.
7. Installs and maintains environmental systems equipment and components such as air conditioning equipment, absorption units, condensers, pump compressors, and other pneumatic and electric machinery. Installs and maintains cooling tower and cooling water treatment equipment. Cleans coils, removes and installs motors (excluding electrical), motor bearings and repairs and fabricates replacement housings, welds duct work and other light gauge metals for this equipment.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed nor is it intended that related duties cannot be required.

Class Title: Sheet Metal Mechanic II

Class Code: 5192

Pay Grade: 212

8. Prepares working plans and materials for constructive or repair welding. Work from blueprints and other written specifications to select appropriate metal materials and welding applications, and layout measuring and drawing guidelines on metal such as pipe, tubing, or sheets of nickel, brass, aluminum, stainless steel and various irons.
9. Ability to fabricate unique or prototype equipment or component parts and modify existing equipment such as hinges, underbody ice blades, vehicle storage racks, J and eye bolts, therapeutic steel braces and brackets by selecting the appropriate welding methods (TIG, heli-arc, soldering, wire feed, arc rod, brazing, gas welding) and making the proper adjustments.

KNOWLEDGE, SKILLS, AND ABILITIES:

1. Knowledge of safety precautions mandated by OSHA and other applicable codes and regulations to include knowledge of the safety equipment to be used. Understands occupational hazards and safety precautions of the trade.
2. Knowledge of the proper use and care of materials and assigned tools/equipment such as gas shield arc welders, arc welders, and acetylene, oxygen or arc cutting torches, welding rods and torch tips.
3. Knowledge of the standard and precision methods of welding and metal fabrication including arc and gas welding, cutting, brazing, soldering and metalworking as well as, metallurgy and heat treatment as they relate to the strength and use of various combinations of flame and metal. Skills in welding and fabricating of all types of metals including cast iron, aluminum, steel, stainless, brass, copper and titanium.
4. Ability to perform simple computer transactions and data entry to order supplies and equipment. Ability to layout calculations and implement them into the computerized equipment to perform multiple phases of sheet metal bends in a metal product.
5. Ability to work outdoors in all types of weather conditions or in areas where there is possible exposure to loud noise, dirt, ink, and fumes. Must be able to lift objects up to 100lbs.
6. Ability to plan, design and determine appropriate sizes and shapes of material to use in metal fabrication or repair of fixtures and equipment. In addition, must be able to understand new technology and the use of new apparatus and tools.
7. Skills in welding and fabricating of all types of metals including cast iron, aluminum, steel, stainless, brass, copper and titanium.
8. Ability to work and communicate with internal clients and customers to meet their needs in professional manner and provide quality service. Display a high level of initiative, effort and commitment towards completing assignments efficiently. Works with minimal supervision, demonstrates responsible behavior, and attention to detail.

Class Title: Sheet Metal Mechanic II

Class Code: 5192

Pay Grade: 212

9. Ability to troubleshoot and diagnose problems as they arise in HVAC systems to ensure timely and cost saving repairs, and the capability to bring systems and equipment back on line quickly and efficiently.
10. Knowledge of air fundamentals, air measurement, fan laws, fan curves, fan systems, air balance, drive changes, psychometrics, water fundamentals, water measurements, pumps, water systems, water balance, and field measurements of sound and vibration , and electrical measurements.
11. Ability to work in all types of environmental conditions or in areas where there is exposure to excessive noise, dirt, and fumes and at elevated heights from ladders, scaffolds, or hydraulic lifts.
12. Ability to work independently during normal work hours and after hours.

MINIMUM ELIGIBILITY REQUIREMENTS:

1. Six years of experience, including four years in the sheet metal trade, two years welding experience and six months machinist work experience. Permitted experience equivalencies:
 - a. Successful completion of an approved two year welder apprenticeship program may be substituted for the required experience.
 - b. An equivalent combination of education and experience substituting one month of approved trade school coursework in welding for each month of the required welding experience to a maximum substitution of twenty four months.
2. Must possess a valid driver's license and meet University's Fleet Safety Program.

H:(hr/classdes)5192

REVISION EFFECTIVE: July 1, 2014