OVERVIEW:
Under immediate supervision, in a trainee capacity, the Metal Worker Apprentice performs a variety of progressively more complex duties involved in the metal work trade which may include welding, sheet metal work, materials fabrication and/or machine shop work in support of facilities and systems preventive maintenance and renovations in accordance with specific training objectives.

DISTINGUISHING CHARACTERISTICS:
The apprentice classification is distinguished from the Metal Worker I classification by the trainee nature of the work, which is performed under the immediate supervision of a journey-level or higher Metal Worker. Incumbents follow a formal training plan with established objectives and are not solely responsible or accountable for the completion of journey-level tasks on a continuing basis.

The apprentice classification is designed for the employment of minimally qualified individuals with little or no skilled work experience, who are at least 18 years of age, and who demonstrate an aptitude and desire to learn the metal working trade. This classification will be used in conjunction with a formal training program of on-the-job training and supplemental education which outlines the training objectives and provides a method for the evaluation of performance while working to achieve those objectives. As this is a four-year training classification, and not intended for the employment of journey-level metal workers, incumbents generally are not appointed to this classification for more than four years. Upon certification of journey-level capability, incumbents will become eligible for appointment or transition to the Metal Worker I classification; however, placement into the Metal Worker I classification is not guaranteed.

TYPICAL ACTIVITIES:
Incumbents in this apprentice classification are instructed in and learn to assist in the maintenance of a metal working/machine shop including advising in the selection, ordering, and storing of metal working, machining, and fabrications materials, supplies and equipment; lay out, position, and complete projects from blueprints, sketches and verbal instructions; make sketches and estimate costs of metal and/or machine work; inspect assemblies and work performed by contractors to ensure they conform to specifications, requirements and sound trade practices; maintain and service tools and equipment used in the performance of duties; maintain records and retrieve data related to work performed using manual and/or computerized record keeping systems; prepare standard reports; perform all work in accordance with established safety procedures and maintain a safe and clean work environment; consult and work with other trades workers; and maintain records of progression through work processes as outlined in the training program. Work may involve exposure to hazardous materials. Metal work at the campus typically falls into one or more of the following core areas. The Apprentice may specialize in one or more areas. This will be outlined in the training plan.
HVAC ductwork fabrication and installation involves sizing and selecting ductwork and fittings based on CFM, velocity and static pressure requirements; the layout and fabrication of custom fittings; and the fabrication and installation of sheet metal components.

Sheet metal construction and repair for architectural and non-structural metal work involves using triangulation, radial parallel and shop mathematics to develop patterns, shapes and parts; cutting, welding, brazing and soldering of sheet metals; installing, maintaining, inspecting and repairing of sheet metal parts; and developing, forming and fashioning sheet metals into various sheet metal objects such as gutters and downspouts, air handling equipment, roof flashings; hand rails and related non-structural equipment and fixtures.

Machine shop work involves operating and maintaining of machine tools used in the construction and repairing parts, tools, equipment and fixtures.

TYPICAL QUALIFICATIONS:
Entry to this apprentice classification requires the possession of a high school diploma, California GED, or equivalent combination of education and experience including one year of high school algebra with a grade of “C” or better, or equivalent.

Incumbents must be able to follow oral and written instructions; read, write and perform such tasks at a level appropriate for the duties; establish and maintain cooperative working relationships; learn the methods, materials, tools and equipment used in a wide variety of metal and machine work including cutting, welding, brazing, soldering, layout, sheet metal brake, and/or machine shop work; learn the composition, characteristics and uses of ferrous metals, nonferrous metals and alloys and/or various sheets metals; learn the installation standards for low, medium, and high pressure ductwork; and learn state safety orders applicable to metal work, including Safety Orders of the Division of Industrial Safety of the State of California. Incumbents also must be able to work in a trainee capacity, demonstrating continued progress and improvement in performing skilled metal and machine work for preventative maintenance on facilities, systems, equipment, structures and fixtures; identifying and using the tools and materials of the trade; developing work habits, knowledge and abilities pertinent to the trade; and meet all the criteria as defined in the CSU and SETC Apprenticeship Standards Addendum.