



**STATE OF NEVADA**  
**Department of Administration**  
**Division of Human Resource Management**

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**CLASS SPECIFICATION**

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
<b>PRECISION MACHINIST</b>	<b>33</b>	<b>G</b>	<b>9.407</b>

Under general supervision, Precision Machinists design and/or fabricate new components, special tools and equipment; modify existing assemblies and parts; manufacture and repair existing special mechanic tools, specialized equipment and components.

Work from blueprints, sketches, verbal descriptions or defective parts; develop drawing of specific pieces to be machined; determine dimensions and tolerances; select appropriate metal, alloy, or other material based on knowledge of the properties of the material and the purpose for which the piece will be used; and provide cost estimates by calculating labor and material requirements as requested.

Lay out material in preparation for machining by referring to drawings, measurements, markings, and scribing dimensions and reference points on the material.

Select appropriate machines, tooling and method of finish and determine the appropriate feed rates, cutting speed, and depth of cut.

Operate machine tools such as lathes, milling machines, grinders, and drill presses to manufacture piece to specifications which often involves working to a tolerance of .001 inch.

Refer to charts and formulas for drilling, tapping, turning, boring, and threading and may fabricate parts from sheet metal by shearing and bending the piece with correct radius.

Use various precision measuring tools such as calipers, indicators, micrometers, and height gauges to ensure pieces conform to specifications.

Perform various welding fabrication tasks using Metal Inert Gas (MIG) and ARC welders, Oxy-Acetylene welding and torch equipment, and plasma cutting equipment.

May participate in selecting and ordering equipment, tools and material required for shop operations; review products; perform cost analysis; prepare specifications; locate vendors; and make recommendations to supervisor.

May provide training to individuals in the Mechanic-In-Training program.

Perform related duties as assigned.

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**MINIMUM QUALIFICATIONS**

**SPECIAL REQUIREMENT:**

- \* Some positions require employees to furnish their own tools.

**EDUCATION AND EXPERIENCE:** Completion of an approved apprenticeship training program and three years of experience as a precision machinist, precision instrument and tool maker or closely related trade which included

### MINIMUM QUALIFICATIONS (cont'd)

#### EDUCATION AND EXPERIENCE: (cont'd)

experience in design and layout work and operating a variety of machine tools to manufacture precision components, instruments and tools; **OR** an equivalent combination of education and experience as described above. (*See Special Requirement*)

#### ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

**Working knowledge of:** properties and characteristics of metals, alloys, and other materials used in fabrication such as plastic, nylon, and rubber; methods, tools, and equipment used in precision machine work; mathematics sufficient to design and manufacture components. **Ability to:** set up and operate machine tools; prepare recommendations for equipment and materials; read and interpret specifications, machinist manuals, blueprints, and rough sketches; work independently and follow through on assignments with minimal supervision; determine machines and tools suitable to manufacture components efficiently; modify and/or adapt designs, procedures, or methods to minimize shop time or improve efficiency; determine tolerances on machined components and matching parts; and perform prototype machine work. **Skill in:** all aspects of machining including grinding special tools from carbide and high carbon steel; safely operating, maintaining, and repairing equipment used in precision machine work; using precision measuring instruments; and AutoCad design software.

#### FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

**Working knowledge of:** agency and division rules, policies, and procedures. **Ability to:** perform heat-treating and heliarc welding; gather, compile and analyze information required to justify equipment and material needs.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

#### 9.407

ESTABLISHED: 7/1/91P  
11/29/90PC  
REVISED: 6/27/03PC  
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