

Title: <b>CNC Machinist</b>	Effective Date: June 22, 2019	Grade: XI	Job Category: Skilled Craft
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***CHARACTERISTICS OF WORK***

This position is responsible for programming complex Computer Numerical Control (CNC) machinery using Computer-aided manufacturing (CAM) software, reading and interpreting mechanical drawings and providing proper care, maintenance, servicing and record keeping of instruments and equipment as required.

***EXAMPLES OF WORK***

The following examples are intended only as illustrations of various types of work performed. No attempt is made to be exhaustive. Related, similar, or other logical duties are performed as assigned. The Department may require employees to perform functions beyond those contained in job descriptions. The Department may modify job descriptions based on Department needs. The Arkansas Department of Transportation is an "at will" employer.

- Program complex geometry using G code and CAM software.
- Build, fabricate, and repair instrumentation from verbal instructions, blueprints, working drawings and/or visually viewing parts that need to be reproduced.
- Modify instruments for special projects.
- Program mills and lathes by entering instructions, including zero and reference points, setting tool registers, offsets, compensation, and conditional switches, and calculating requirements, including basic math, geometry, and trigonometry.
- Set-up mills and lathes by installing and adjusting three and four jaw chucks, tools, attachments, collets, bushings, cams, gears, and indicating vices.
- Document actions by completing production and quality logs, Records setup sheets and drawings for each new design.
- Plan stock inventory, anticipates needs, and assists in placing and expediting orders for special materials.
- Maintain safe operations by adhering to safety procedures and regulations.
- Perform in-process inspection on instrumentation.
- Repair, clean, adjust and/or perform preventive maintenance on equipment, tools and machinery.

***MINIMUM REQUIREMENTS***

The educational equivalent to a diploma from an accredited high school. Experience performing machine set-up and machining experience using CNC mills / lathes. Advanced knowledge of programming CNC machines. Hands-on experience with micrometers, calipers, dial and digital indicators, optical comparator, ring gauges, pin gauges and thread gauges. Knowledge of CNC machine tools, including their designs, uses, benefits, repair and maintenance. Knowledge of principles, theories, and practices of machining stainless steels, cobalt chrome, aluminum and plastics. General computer skills. Ability to calculate figures and amounts/or use tools to calculate and apply concepts of basic algebra and geometry. Ability to understand G code and program complex CNC machinery using CAM software. Ability to read and interpret mechanical drawings as well as a working knowledge of mechanical principles involved in fabricating and machining parts or assemblies. Ability to use hands to grasp, manipulate, or assemble objects or quickly and repeatedly adjust the controls of a machine to exact positions. Ability to stand for extended periods of time.

*("Accredited" means the educational institution or program is accredited by an accrediting organization recognized either by the United States Department of Education or by the Council for Higher Education Accreditation.)*

