Auburn University Job Description

Job Title: Master Machinist

Under minimal supervision, sets up and operates a variety of machines, and equipment. This combines elements of mechanical design, technical drawings, mathematics, and computer aided machining (CAM). Tracks a product through each phase of its creation, from an initial concept to a tangible, finished item and utilizes 3D printers, CNC machines, Coordinate Measuring Equipment, and state of the art 3D scanners to physically make anything humans may conceive.

Essential Functions

1. Enforces and supervises principles and legal requirements for OSHA Machining Safety, Material Safety Data Sheets, Lock Out Tag Out (LOTO), and Electrical Safety.
2. Demonstrates and programs coordinate measuring machines of all types. Uses optical microscopes and surface measuring instruments to characterize surface finish of produced parts.
3. Troubleshoots and take corrective actions necessary to maintain the functionality of machining equipment.
4. Interprets engineering drawings provided by customers, including Geometric Dimensioning and Tolerance.
5. Demonstrates and teaches advanced reverse engineering skills using manual and automatic metrology tools.
6. Produces assembly drawings as necessary. Instructs industrial and academic student in the use of multiple Computer Assisted Drawing Software.
7. Programs 5 axis machines, Swiss machines, Grinding machines and EDM machines as necessary to produce prototypes and production work. Teaches industrial workshops in these areas.
8. Leads workshops and instruct all Level 1, 2 and 3 skills with other industrial operators and students.
9. Acts as one of the Safety Officers in the facility.
10. Supervises safety of undergraduate and graduate students on the production/shop floor.

Supervisory Responsibility

Full supervisory responsibility for other employees is a major responsibility and includes training, evaluating, and making or recommending pay, promotion or other employment decisions.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.
Auburn University Job Description

Minimum Required Education and Experience

<table>
<thead>
<tr>
<th>Education</th>
<th>Minimum</th>
<th>Focus of Education/Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate's Degree</td>
<td>Associate's Degree</td>
<td>A.S in Advanced Manufacturing, Machining or Computer Numerical Control (CNC) Machining</td>
</tr>
</tbody>
</table>

Minimum Required Knowledge

Knowledge of basic machining concepts.

Certification or Licensure Requirements

- NIMS Certification in Milling 1 and 2—Required
- NIMS Certification in Turning 1 and 2—Required
- Qualified as CNC 5 axis Operator—Required
- Qualified as an Electrostatic Discharge Machine Operator—Required
- NIMS Certification in Diemaking Level II (preferred)
- NIMS Certification in Moldmaking Level II (preferred)
- I 4.0 Smart Systems Integration Specialist (Preferred)
- I 4.0 Smart Process Specialist (Preferred)
- Basic Swiss Machine Operator (Preferred)

Entry into Level III requires an employee to pass the Auburn University CNC 5 Axis Specialist and the Conversational Grinding Machine Operator examination.

Pre-Employment Screening Requirements

Must be eligible for U.S Security Clearance.

Physical Requirements/ADA

- Regularly involves lifting, bending or other physical exertion. Often exposed to one or more elements such as heat, cold, noise, dust, dirt, chemicals, etc., with one often to the point of being objectionable. Injuries may require professional treatment.

- Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

- Job frequently requires standing, walking, reaching, stooping/kneeling/crouching/crawling, talking, hearing, handling objects with hands, and lifting up to 25 pounds.

- Job occasionally requires sitting, climbing or balancing, and lifting more than 100 pounds.

- Vision requirements: Ability to see information in print and/or electronically, ability to distinguish colors.

Date: 8/3/2023