

**INDUSTRIAL MANUFACTURING PRODUCTION TECHNICIAN  
(EXISTING TITLE: INDUSTRIAL MANUFACTURING TECHNICIAN)  
O\*NET-SOC CODE: 17-3029.09 RAPIDS CODE: 2031HY**

**APPROXIMATE HOURS**

**Protect self and other workers from accidents and injuries 100**

1. Follow industry-specific safety procedures around electricity, machines, equipment & manufacturing processes
2. Minimize potential hazards
3. Work following OSHA industrial safety standards
4. Maintain clean work areas and follow Six Sigma practices
5. Demonstrate awareness of first aid, CPR, and blood borne pathogens
6. Inspect, maintain, and report and replace hand tools and power equipment

**Operate production equipment 1000**

1. Works according to production schedules to meet job specifications
2. Operates equipment safely and efficiently
3. Monitor and inspect products and processes
4. Monitor and adjust equipment during operations as needed
5. Documents work, work processes and adjustments
6. Shuts down equipment properly
7. Disassembles equipment and components, if appropriate
8. Cleans up tooling, equipment, and work spaces
9. Sanitizes equipment according to applicable standards

**Produce quality product****500**

1. Verifies product quality following quality work instructions
2. Report completed work accurately
3. Perform quality checks
4. Demonstrate awareness of defects and causes of rework
5. Monitors the cost of poor quality (including scrap and rework)
6. Apply cost of quality principles to jobs and manufacturing processes
7. Apply quality training to job duties and work processes
8. Document all quality tests & understand implications and consequences of documentation
9. Adhere to customer specific quality requirements
10. Follow company specific quality guidelines

**Interpret technical information****200**

1. Use blueprints, formulas and process control sheets efficiently
2. Reference project plans and documents by completing an apprenticeship Job Book or checklist of competency completion
3. Apply job specifications to work processes accurately
4. Interprets production orders properly
5. Follows quality specifications accurately

**Measure and inspect work using mechanical tools and testing equipment 200**

1. Measure and visually inspect materials, products or parts, and finished goods accurately in accordance with job specifications
2. Apply math to measuring and inspection of work
3. Interpret tolerances using blue prints and job specifications
4. Use gauges and measuring devices accurately
5. Verify workmanship and compliance with job specifications
6. Identify and report non-compliant stock, material, parts, or finished goods
7. Inspects materials, parts, products, or finished goods to quality standard
8. Select and use hand and mechanical tools appropriately
9. Use applicable systems to report results and document work

**Demonstrate knowledge of routine equipment maintenance 100**

1. Inspect equipment
2. Demonstrate mechanical problem solving abilities
3. Identify when a machine is not working properly
4. Apply preventative maintenance practices effectively
5. Follow general lubrication guidelines
6. Maintain machine components following manufacturer specifications (if applicable)
7. Follow basic troubleshooting guides
8. Assist and communicate with maintenance personnel on equipment malfunctions
9. Demonstrate awareness of basic maintenance concepts

**Demonstrate knowledge of inventory and material processes** **100**

1. Apply lean manufacturing principles to work processes
2. Compare inventory flow to roles and responsibilities
3. Demonstrate aware of process flows in a manufacturing plant
4. Identify material management processes
5. Demonstrate awareness of logistics related to raw materials and customer deliveries
6. Work with production materials according to work schedules
7. Apply basic manufacturing equipment operations

**Demonstrate knowledge of trends and the current state of the business** **100**

1. Identify the competition and potential opportunities (Ex. Strengths, Weaknesses, Opportunities and Threats or related analysis)
2. Explain the competition and potential opportunities between internal Businesses
3. Describe the importance of department and plant goals (Ex. Key Performance Indicators)
4. Apply basic business terms to manufacturing related work processes
5. Demonstrate awareness of both upstream and downstream
6. Participate in company leadership briefings
7. Relate the job role and trade to keeping jobs

## **Demonstrate continuous improvement**

**100**

1. Suggests improvements to business and manufacturing processes
2. Uses tools for continuous improvement effectively
3. Minimizes and removes process wastes (associated with water, energy, manufacturing processes, and other resources)
4. Participates in continuous improvement for professional growth
5. Identifies potential defects
6. Follows standard work instructions properly
7. Maintains records regarding machine faults
8. Applies visual management/visual controls through six sigma
9. Applies root cause analysis to continuous improvement of manufacturing work processes
10. Applies autonomous maintenance principles
11. Practices quick change overs (ex. Six-minute exchange of die)
12. Identifies equipment abnormalities
13. Adapts to process changes including cycle times, set-ups, and tooling
14. Participates in cross-training opportunities
15. Understands the business strategies and motives for continuous improvement
16. Applies profitable sustainability concepts to continuous improvement

**Set-up production equipment** **200**

1. Plans for and identifies set-up requirements
2. Selects tools and materials
3. Verifies safety
4. Assembles equipment
5. Performs mechanical set-up according to employer's standard operating procedure manual, and equipment manufacturer's specifications
6. Tests and verifies set-up
7. Adjusts set-up as needed to meet product and production specifications
8. Interprets visual controls accurately
9. Inspects equipment and components

**Local Options** **136**

The employer will establish additional training in the form of competencies not otherwise stated in this Work Process Schedule (WPS), to be demonstrated by the apprentice and performed for some or all of the required minimum hours for Local Options, and/or the employer may distribute some or all of the required minimum hours to one or more work processes stated in this WPS.

**TOTAL HOURS** **2736**