

MAINTENANCE MECHANIC (AUTOMATIC EQUIPMENT)

APPENDIX A

O*NET CODE 49-9041.00

This training outline is a minimum standard for Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

WORK PROCESSES

| | Approximate Hours |
|---|--------------------------|
| A. Preliminary Machine Familiarization | 500 |
| 1. Adjusting and familiarization with machines | |
| 2. Proper use and operation of tools, equipment, and fixtures | |
| 3. Familiarity with shop operations, procedures, maintenance schedules | |
| B. Basic Maintenance | 1000 |
| 1. Oiling, greasing and lubricating machinery | |
| 2. Cleaning machines and other equipment | |
| 3. Performing basic diagnostic tests and checking performance | |
| 4. Testing damaged machine parts | |
| 5. Detecting minor problems | |
| 6. Disassembling and assembling machinery/equipment | |
| 7. Temperature monitoring (if applicable) | |
| C. Preventive Maintenance | 1000 |
| 1. Maintaining peak operating condition of industrial machinery/equipment | |
| 2. Learning problems and repairs to be made to specific machines | |
| 3. Performing preventive maintenance schedules | |
| 4. Keeping appropriate records | |
| D. Machine Shop | 500 |
| 1. Working safely with machine tools | |

2. Operating machine tools such as: drill, lathe, mill and grinder to make replacement parts for production machines/equipment

E. Troubleshooting **3000**

1. Diagnosing major problems in machinery
2. Analyzing results
3. Repairing or replacing broken parts
4. Inspecting, repairing, testing
5. Reassembling

F. Welding and Fabrication **500**

1. Following all safety procedures and policies
2. Accurately reading blueprints, sketches, diagrams, technical manuals
3. Welding in connection with the trade

G. Rigging and Installing **500**

1. Inspecting, repairing, operating cranes and cables
2. Installing machines/equipment
3. Aligning machines/equipment

H. Electrical (optional*) **750**

1. Reading schematics
2. Installing conduit
3. Identifying problems in electrical systems and controls; troubleshooting (varied voltage)
4. Using computerized diagnostic systems and vibration analysis (if applicable)

I. Miscellaneous **250**

1. Safely using ladder and personnel lifts (if applicable)
2. Identifying and obtaining parts from stockroom
3. Adhering to maintenance schedules
4. Using safety precautions in all operations
5. Handling toxic chemicals in safe manner
6. Keeping necessary computer records

Approximate Total Hours **8000**

*If optional Work Processes are not selected, the hours should be devoted to further mastery of the required Work Processes.

Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to <https://dol.ny.gov/public-work-and-prevailing-wage>

MAINTENANCE MECHANIC (AUTOMATIC EQUIPEMENT)

APPENDIX B

RELATED INSTRUCTION

Safety and Health

1. General Workplace Safety
2. Proper Use of Personal Protective Equipment (PPE)
3. Fall Protection
4. Ladder Safety
5. Proper Lifting Techniques
6. Right-To-Know/Material Safety Data Sheets (MSDS)
7. Annual Hazard Material Communication Training
8. Respirator Training, including Fit Test (if applicable)
9. Fire Extinguisher Training (if applicable)
10. Equipment Safe Operating Practices
11. Confined Space Training (if applicable)
12. Safety in Working around Machines
13. Welding Safety
14. First Aid – minimum 6.5 hours every 3 years

Blueprints

1. Fundamentals of Blueprint Reading
2. Machine Blueprint Reading
3. Advanced Blueprint Reading
4. Reading Schematics (if applicable)
5. Fundamentals of Electronics and Computer Programming (if applicable)

Mathematics

1. Fundamentals
2. Elementary Applications to the Trade
3. Advanced Applications to the Trade
4. Using Technical Manuals and Procedures
5. Precision Measurement

Trade Theory and Science

1. Materials of the Trade
2. Tools, Machines and Equipment
3. Care, Maintenance and Operation
4. Terminology
5. Technology of Jobs, Operations and Processes
6. Layout and Production Methods
7. Cutting Tools and Abrasives
8. Tool, Die, Jig and Fixture Design
9. Metallurgy
10. Electrical Controls and Basic Electronics (optional)
11. Welding (certification as required)
12. Brazing and Soldering

Other Workplace Skills

1. Communication Skills
2. Team Work Skills
3. Logic and Reasoning Skills (Critical Thinking)
4. Active Listening Skills
5. Industrial and Labor Relations
6. Sexual Harassment Prevention Training – must comply with section 201-g of the Labor Law

Other Related Courses as Necessary

A minimum of 144 hours of Related Instruction is required for each apprentice for each year.

Appendix B topics are approved by New York State Education Department.