

**INDUSTRIAL SEWING MACHINE OPERATOR  
(Time-Based)**

**APPENDIX A**

O\*NET CODE 51-6031.00

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**

|   | <b>Approximate Hours</b> |
|---|--------------------------|
| <b>A. Workplace Orientation</b>   | <b>100</b>               |
| 1. Describe workplace organizational structure.   |                          |
| 2. Follow all workplace policies and procedures.  |                          |
| 3. Understand and adhere to all applicable Local, State, and Federal laws and regulations.  |                          |
| 4. Demonstrate an understanding of general ideas regarding workplace ethics, interpersonal communication, and general management.                     |                          |
| <b>B. Sewing and Cutting Techniques</b>   | <b>400</b>               |
| 1. Perform several sewing methods by hand such as the Running Stitch, Backstitch, Satin Stitch, Stemstitch, French Knot, Lazy Daisy, and Woven Wheel. |                          |
| 2. Measure, cut, and sew nylon and synthetic materials based on work orders and customer specifications.  |                          |
| 3. Perform the various hand tasks necessary to sew products including turning the material to hem, join pieces, and repairing defective products.     |                          |
| 4. Attach elastic, cord, zippers, hooks, buttons and other trimmings to sewn pieces according to work order instructions.                             |                          |
| 5. Learn the skill of finishing, hemming, and pressing of different fabrics.  |                          |
| 6. Utilize all production tools for snaps, buttons, zippers, etc.   |                          |

### **C. Operating Commercial Sewing Machines**

**975**

1. Set-up, operate, maintain, and troubleshoot machines relating to the production of cut and sewn products.
2. Read and interpret work orders and adjust machines and materials to match, including selecting thermal sheets, thread and needles, mounting necessary attachments, and double-checking settings before beginning a large run.
3. Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
4. Perform equipment maintenance tasks such as replacing needles, sanding rough areas of needles, or cleaning and oiling sewing machine(s).
5. Utilize safety methods when working with sergers, single needles, double needles, steam irons and lasers, binding, sealing assembly, and manual cutters.

### **D. Production/Manufacturing Process**

**100**

1. Evaluate and inspect the quality of finished products to specifications.
2. Record work completion of all work orders processed.
3. Sew materials.
4. Cut materials.
5. Follow blueprint instructions.
6. Perform counting and inspecting of the product during the sewing process.
7. Load and unload materials.

### **E. Handling of Various Materials**

**325**

1. Handle and work with various materials, such as canvas, leather, vinyl, and various fabrics.
2. Use tools and equipment necessary for selected materials.
3. Perform the reading of patterns, preparing fabric for cut and sew process.
4. Understand patterns for sewing and cutting operations.
5. Operate and maintain sewing machines and related parts, including pattern plates, needles, presser feet, automatic cutting tools, and blades.

## F. Troubleshoot and Safety Procedure

100

1. Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
2. Observe all safety procedures, rules and regulations, and instructions in performance of job duties.
3. Troubleshoot basic machinery problems and request service or repairs as needed.
4. Control and adjust machine settings (e.g., speed).
5. Test operation of machines periodically.
6. Set up machines (calibration, cleaning, etc.) to start a production cycle.

**Approximate Total Hours**

**2000**

*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>*

# INDUSTRIAL SEWING MACHINE OPERATOR

## APPENDIX B

### RELATED INSTRUCTION

#### **Safety, Health, and the Workplace**

1. General Workplace Safety
2. Cut and Sew Safety and Ergonomics
3. First Aid & CPR (minimum 6.5 hours)
4. Personal Protective Equipment (PPE)
5. Right-to-Know/Safety Data Sheets (SDS)
6. Chemical Safety Training
7. Sexual Harassment Prevention Training – MUST comply with section 201-g of the Labor Law
8. Occupational Safety and Health Administration (OSHA) 10-Hour General Industry Training Course

#### **Trade Theory and Skills**

1. Math for Measuring
2. Introduction to Sewing and the Process of Production
3. Product Lifecycle Management
4. Sewing Equipment, Tools, Techniques, and Systems
5. Materials and Handling Methods for Sewing Manufacturers
6. Knowledge of Fabrics, Handling, Care and Storage, and Reading Patterns
7. Basic Sewing Techniques
8. Finishing, Hemming, and Pressing of Different Fabrics.
9. Sewing Equipment and Operations (Industry Rotations)
10. Sewing and Production
11. Introduction to Upholstery
12. Introduction to Alterations
13. Sewing Inspection and Quality Products

#### **Other Workplace Skills**

1. Sewing Technology/Software Systems:
  - a. Computerized Patternmaking Systems (such as Gerber Accumark)

- b. Flat Sketch
- c. 3D/Virtual Garment Visualization
- d. Pattern Design Software Systems
- e. Data Conversion (exporting patterns in dxf and zip files into other software, such as CLO 3D and Adobe Illustrator)

2. Employer Specific Skills

**Additional Topics as Required**

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

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