



STATE OF NEW YORK  
DEPARTMENT OF LABOR

APPENDIX A

GRAPHICS ARTS TECHNICIAN  
D.O.T. CODE 979.382-018

This training outline represents a minimum standard in terms of work processes and related instruction which are required to achieve skilled worker status. It is recognized that rapid technological and regulatory changes will frequently result in the need for additional on-the-job or classroom instruction.

WORK PROCESSES

	<u>Approximate Hours</u>
A. Familiarization with Offset Lithography Equipment, Materials and Processes	1,400
1. Camera Work	
a. Preparing line copy materials	
b. Calculating copy reduction & enlargement specifications	
c. Preparing half-tone copy; using contact and half tone screens	
d. Setting up & operating graphic arts camera; computing exposures	
e. Processing photo negatives and positives; dark room procedures	
2. Plate Making	
a. Familiarization with primary offset plate materials	
b. Preparing plates	
1. Plate coating solutions, surface coated plates, presentitized plates	
2. Paper plates, direct image plates	
3. Familiarization with characteristics of offset inks; composition, mixing and storage	
a. Paper terminology, application and limitations	
b. Paper cutting; estimating sheet use effectiveness	
c. Controlling paper stretch and shrinkage	
B. Copy Preparation and Layout Procedures	1,400
1. Reading and interpreting work orders	
2. Familiarization with layout materials, equipment & procedures	
3. Constructing flats, handling negatives and positive copy materials	
4. Preparing art work: Illustrating, opaquing, air brushing, pasting up copy components and preparing mechanical	

- B. Copy Preparation and Layout Procedures – continued  
copy components
- 5. Planning methods to present copy; determining size, style & arrangement of copy; selecting size and size type required
- 6. Preparing rough sketches and final proof for customer review and modification
- 7. Inspecting positive and negative line and half-tone copy materials for imperfections
- 8. Familiarization with requirements for copy preparation, transmittal, lead time requirements and technical limitations
  
- C. Black and White and Color Printing Process Copy Preparation Requirements 1,200
  - 1. Familiarization with black & white and color separation procedures
  - 2. Stripping (mounting) half-tones and line negatives into layout format
  - 3. Outlining multicolor negatives into plate layout
  - 4. Registering negatives into plate layout flat
  - 5. Preparing registered overlays for double printing operations
  - 6. Inspecting & assuring conformance to register modifications
  - 7. Stripping negatives into layout compositions to make contact positives for deep etch plates
  - 8. Preparing color separation film assemblies
  - 9. Stripping color process negatives and positives
  
- D. Familiarization with Offset Presses 1,000
  - 1. Nomenclature
  - 2. Press component systems; control panel, plate & blanket cylinders, impression cylinders, ink rollers, dampening rollers
  - 3. Installing, removing and storing plates
  - 4. Installing and removing blankets
  - 5. Setting up and adjusting inking mechanism
  - 6. Maintaining and setting dampening rollers
  - 7. General press preventive maintenance and housekeeping procedures
  - 8. Making adjustments for paper size and thickness
  
- E. Press Operating Procedures 1,000
  - 1. Press set-up and make-ready preparation
    - a. Lubrication
    - b. Selecting printing speed, paper separation, feed & delivery control mechanisms
    - c. Adjusting and setting press blanket tension
    - d. Installing and adjusting plates to assure even image transfer
    - e. Preparing and adjusting damper roller assemblies
    - f. Setting up feed mechanism; setting pile guides and pile

- height governor
- g. Setting and adjusting image register controls
- 2. Trial printing – inspection and assuring quality standards
- 3. Start up and monitoring production runs
- 4. Trouble shooting malfunctions and image reproduction problems
- 5. Using auxiliary press equipment
  - a. Collating
  - b. Folding
  - c. Punching and cutting paper
- 6. Production quality control procedures and standards

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Total Hours                      6,000

*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 <http://www.labor.state.ny.us/workerprotection/publicwork/PDFs/Article8FAQS.pdf>.*

APPENDIX B

GRAPHIC ARTS TECHNICIAN

RELATED INSTRUCTION

Blueprint Reading, Sketching and Drawing

Fundamentals

Interpreting Lithographic Press Blueprints

Mathematics

Fundamentals

Precision Measurement

Applications to the Trade

Safety (16 Hours)

Fundamentals (4 hours first year)

Trade Safety (12 hours second year)

Industrial and Labor Relations (20 Hours)

History and Background (6 hours first year)

Current Laws and Practices (14 hours second year)

Trade Theory

Tools, Machines and Equipment

Materials

Terminology

Press Operation, Care and Maintenance

Theory of Jobs and Processes

Trade Science

History of Lithography

Technology of Processes

Principles of Tools, Machines and Equipment

Physical Properties of Materials

Technology of Paper Making

Other Related Courses as Necessary

First Aid – Minimum 10 hours per year

Sexual Harassment Prevention Training – minimum 3 hours

144 hours of related instruction are required for each apprentice for each year.

