

METAL REFINISHER

APPENDIX A

O*NET CODE 47-4099.99

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 training or classroom instruction.

WORK PROCESSES

	Approximate Hours
A. Basics	500
1. Orientation and safety	
2. Care and maintenance of tools and equipment	
3. Erection and breakdown of aluminum scaffold	
4. Repair and maintenance of aluminum scaffold	
5. Use of spray gun	
6. Cleaning and maintenance of spraying equipment	
7. Identification of materials, tools and equipment used in the metal refinishing process	
8. Safe use of solvents	
9. Proper job site set-up; job site hazards identification	
B. Terminology	500
1. Familiarization with the various metals used in/on buildings: bronze, brass, aluminum, stainless steel, etc.	
2. Familiarization with working characteristics of metals	
3. Familiarization with polishing characteristics of metals	
4. Identification of various metal substrates to be refinished	
C. Estimation	500
1. Examination of surfaces for scratches, dents, and weather damage	
2. Recording of damages on repair reports	
3. Estimation of repair costs	
4. Estimation of refinishing costs	

D. Preparation	1,500
<ol style="list-style-type: none"> 1. Cleaning of surfaces with acid solutions to remove discolorations and corrosions 2. Repairing of breaks prior to refinishing 3. Stripping of lacquer and other finishes from metal surfaces 4. Cleaning of metal surfaces 5. Proper refinishing techniques for all metal substrates 6. Preparing all metal surfaces for lacquer coatings 7. Preparation before mirror finishing 8. Preparation for chemical oxidation of all metal surfaces 	
E. Conditioning	1,500
<ol style="list-style-type: none"> 1. Sanding with flapper wheels and various power tools, including electrical sanders and grinders 2. Use of various polishing cloths 3. Removal of scratches and other defects 4. Buffing to required finish 	
F. Finishing	1,000
<ol style="list-style-type: none"> 1. Brushing and spraying lacquer on surfaces 2. Stenciling and striping 3. Metal substrate finishing techniques for bronze, brass, and copper 4. Mirror finishing 5. Oxidation 6. Coloring and matching metal for finishing 	
G. Maintenance	500
<ol style="list-style-type: none"> 1. Periodic checking of surfaces 2. Notation of worn spots, scratches, and other defects 3. Stripping and cleaning damaged surfaces 4. Refinishing all metals for the purpose of metal preservation 5. Cleaning and protecting metal and coated metal surfaces 	
Approximate 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 <https://dol.ny.gov/public-work-and-prevailing-wage>.

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APPENDIX B
RELATED INSTRUCTION

Safety and Health

1. Fundamentals
2. Trade safety, including all applicable MSDS
3. Sanitary and health precautions
4. First aid – minimum 6.5 hours every 3 years
5. Sexual Harassment Prevention Training – MUST comply with Section 201-g of the Labor Law

Blueprint Reading

1. Fundamentals of blueprint reading
2. Specifications – finishes for plated materials

Mathematics

1. Weights and measures
2. Fundamentals of mathematics

Industrial and Labor Relations (20 hours)

1. History and background (6 hours, first year)
2. Current laws and practices (14 hours, second year)

Trade Theory and Science

1. Materials of the trade
2. Care and use of equipment
3. Chemical processes
4. Abrasives, uses and applications
5. Polishing speeds
6. Types and applications of polishing wheels and attachments
7. Buffing and polishing compounds
8. Buffing and polishing procedures
9. Production methods used for buffing and polishing plated work
10. Holding devices for materials to be polished

Other Related Courses as Necessary

A minimum of 144 hours of Related Instruction are required for each apprentice for each year, for total of at least 432 hours.

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