This training outline represents minimum standards for work processes and related instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom instruction.

## WORK PROCESSES

<table>
<thead>
<tr>
<th>Process</th>
<th>Approximate Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>A. Tools and Materials</strong></td>
<td>325 - 450</td>
</tr>
<tr>
<td>1. Care, cleaning, and safe use of tools, measuring devices and woodworking machinery</td>
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<tr>
<td>2. Identifying trade materials and their uses</td>
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<tr>
<td><strong>B. Form Building</strong></td>
<td>780 – 1,100</td>
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<tr>
<td>1. Building and placing straight concrete forms; irregular concrete forms; concrete forms for footings, stairways, floors, walls, and columns</td>
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<tr>
<td>2. Stripping and salvaging forms for reuse</td>
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<tr>
<td>3. Locating and erecting forms for ground-mounted solar collector systems (optional)*</td>
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<tr>
<td><strong>C. Rough Framing</strong></td>
<td>780 – 1,100</td>
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<tr>
<td>Framing floors, walls, roofs, stairs, scaffolding – on both house and heavy construction</td>
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<tr>
<td>1. Laying out mud sills or plates for anchoring</td>
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<tr>
<td>2. Placing girders or beams</td>
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<tr>
<td>3. Installing sills</td>
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<tr>
<td>4. Placing and bracing girder posts</td>
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<tr>
<td>5. Installing and bridging floor joists</td>
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<tr>
<td>6. Laying out stairwell</td>
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<td>7. Laying sub-floors</td>
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<td>8. Laying out story-poles</td>
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<tr>
<td>9. Constructing, installing and bracing wall frames</td>
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<tr>
<td>10. Trimming for openings</td>
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<tr>
<td>11. Framing and placing ceiling joists</td>
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<tr>
<td>12. Framing roofs, laying roof decking</td>
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<tr>
<td>13. Roof covering (if in keeping with area practices)</td>
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<tr>
<td>14. Building and erecting scaffolding</td>
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<tr>
<td>15. Using builder’s level</td>
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</tbody>
</table>
D. **Layout**  
Batterboards, partitions, doors and windows, box-out in concrete walls, stairs and roofs

**Approximate Hours**  
325 – 450

E. **Outside Finishing**  
1. Putting on insulation board or housewrap for all types of walls (if in keeping with area practices)  
2. Laying out and installing door frames and jambs  
3. Laying out and installing window frames  
4. Fitting and sanding doors and windows  
5. Applying exterior door and window trim and hardware  
6. Applying insulation (if in keeping with area practices)  
7. Cutting and installing water tables  
8. Constructing and applying all types of cornice and soffit  
9. Finishing gable ends  
10. Constructing verge or bargeboards  
11. Installing gutters (if in keeping with area practices)  
12. Constructing and setting columns  
13. Constructing and setting newels and railings  
14. Constructing porches and entrance canopies  
15. Applying outside wall coverings (in keeping with area practices)  
16. Laying out, constructing, and setting louvers  
17. Installing other exterior trim  
18. Applying all hardware and fittings to outside of building

**Approximate Hours**  
520 – 800

F. **Inside Finishing**  
1. Fitting, sanding, installing doors and windows  
2. Applying interior door and window trim  
3. Applying hardware and fittings to interior of building, doors and windows  
4. Applying baseboards and moldings  
5. Applying interior trim  
6. Constructing and setting cupboards, cabinets and wardrobes  
7. Constructing and setting stair work  
8. Preparing sub-floor and applying finished wood floorings  
9. Laying other types of finished flooring (in keeping with the carpenter craft and area practices)

**Approximate Hours**  
650 – 900

G. **Acoustics and Drywall**  
1. Ceilings – Laying out, cutting, assembling and installing materials and component parts:  
   a. hangers, channels, furring and backing boards  
   b. bars: main tees, cross tees, splines  
   c. stiffeners and braces  
   d. ceiling angles or moldings  
   e. finish ceiling materials

**Approximate Hours**  
650 – 900
G. **Acoustics and Drywall** – continued

2. Walls and Partitions – Laying out, cutting, assembling, erecting, applying materials and component parts:
   a. floor and ceiling runners
   b. studs (wood and metal), stiffeners, bracing, fireblocking
   c. resilient and furring channels
   d. laying out, framing, enclosing vents, light wells, other openings
   e. wall angles and moldings
   f. soffit work
   g. drywall installation on metal framing
   h. studless and laminated installations
   i. thermal and sound insulation, if in keeping with area practices
   j. backing and finish materials
   k. fireproofing columns, beams and chases

H. **Welding and Cutting**

1. Welding as it applies to the trade
2. Conducting oxyacetylene cutting operations
3. Safety

I. **Plastics and Resilients**

1. Knowing various types of materials and their uses
2. Laying out, cutting, welding and installing

J. **Hazardous Materials (optional)**

1. Asbestos abatement
2. Handling and disposing of other hazardous materials

K. **Piledriving/dockbuilding (optional)**

1. Piledriving equipment: hammers, leads, rigging, motors and pumps
2. Rigging and signaling
3. Driving of piles: wood, concrete, steel, etc
4. Cofferdams and caissons
5. Bridge, dock and wharf construction
6. Welding
7. Diving and diver tending

L. **Miscellaneous** (if in keeping with area practices)

1. Rigging and signaling
2. Ensuring conformity of design and materials to blueprints, plans and specifications
L. **Miscellaneous** (if in keeping with area practices) – continued

3. Building walkways
4. Erecting shoring
5. Building sheds
6. Building weather protection devices and structures
7. Erecting fencing

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Total Hours 5,200 – 8,000

*If optional work processes are not selected, the hours should be devoted to further mastery of the other 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 http://www.labor.state.ny.us/workerprotection/publicwork/PDFs/Article8FAQS.pdf.
APPENDIX B

CARPENTER

RELATED INSTRUCTION

Safety & Health

Accident Prevention, Fall arrest & Protection, Safety Hazards, State and Federal safety codes and regulations. Safety training as Required by Occupational Safety and Health Administration (OSHA)

OSHA 10-Hour Construction Course – if required for Public Work

Drug and Alcohol Awareness

First Aid – minimum 6.5 hours every 3 years

Confined Space Safety

Asbestos Safety:

If apprentice will do any handling of asbestos:
   Successfully complete a course approved by the New York State Department of Health for “Asbestos Handler” and obtain, and keep current, an “Asbestos Handler (Worker)” certificate from the New York State Department of Labor

If apprentice will do no handling of asbestos:
   Asbestos Awareness – minimum 4 hours (see attachment)

Hazardous Waste Worker (if Work Process “J” is elected)

Math

Review and Application of Basic Mathematics

Estimating for the Trade

Blueprints

Elementary Blueprint Reading

Advanced Blueprint Reading

Freehand Sketching and Layouts

Industrial and Labor Relations (20 hours)

History and Background (6 hours, 1st year)

Current Laws and Practices (14 hours, 2nd year)

Sexual Harassment Prevention Training (minimum 3 hours)

Trade Science and Theory

Carpentry and the Other Skilled Construction Trades

Tools and Materials of the Trade

State and Local Building Codes

Foundations

Rough Framing

Exterior Finishes

Interior Finishes

Roof Framing

Stair Building and Finishing
Carpenter Related Instruction – continued
Cabinetmaking

Trade Science and Theory – continued
Reinforced Concrete Form Construction
Heavy Timber Construction and Framing
Welding and Cutting
Acoustics and Drywall
Plastics and Resilients
Use of Lasers in Construction (optional)
Solar Collector Systems (optional)
Piledriving Equipment and Materials (if Work Process “K” is elected):
  Piledrivers
    Floating of water drivers
    Construction
    Rigging- anchors, lines, buoys, hammer line, pile line, jet rigging, lead
    rigging, deck winches, rigger leads,
    Hammers and leads (drop, steam, pneumatic, diesel)
    Hammer rigging
    Lead construction (stationary, swinging, pendulum, false, pile extractors)
  Tools- drilling and setting with long augers
  Piling
    Material- wood, treated wood, steel, tube and sheet, concrete, cutoffs
    Driving of material, driving to bearing, jetting
    Rigging- building sections, stressed beams, knots, hitches and splices (manilla and
    wire), stiff legs, gin pole, shear legs, mobile cranes, righting capsized
    drivers
  Excavations and shoring
  Form Building
  Construction of cofferdams- steel sheet piling, wood construction, sealing of cofferdams,
    removal
  Construction of wood trestles- truss type, heavy framing
  Construction bridge - overpasses, abutments, sills, column, vertical curves and supers,
    beams (cast in place, pre-case, pre-stressed and post-stressed)
  Dock building (wood and concrete)
  Float and pontoon
  Welding and burning
  Construction of engines, jets and jet pumps

A minimum of 144 hours of Related Instruction are required for each apprentice for each year.
ATTACHMENT TO APPENDIX B

Asbestos Awareness

This course must be delivered by one of the following:

1. A provider currently approved by the New York State Department of Health to deliver asbestos safety training.
2. A person holding a current Asbestos Handler certificate from the New York State Department of Labor in the title of: Inspector, Supervisor, Project Monitor, Management Planner, or Project Designer.
3. Anyone otherwise approved by the New York State Education Department.

Minimum course contents must include the following:

1. Definition of asbestos
2. Types and physical characteristics
3. Uses and applications
4. Health effects:
   Asbestos-related diseases
   Risks to families
   Cigarette smoking
   Lack of safe exposure level
5. Employer-specific procedures to follow in case of potential exposure, including making a supervisor or building owner immediately aware of any suspected incidental asbestos disturbance so that proper containment and abatement procedures can be initiated promptly.

Notwithstanding the above course requirement, employers are advised that they must also be in compliance with New York State Department of Labor Industrial Code Rule 56 at all times.

Employers are further advised, and must advise all apprentices, that completion of the above course requirement does not authorize any person to remove, encapsulate, enclose, repair, disturb, or abate in any manner, any friable or non-friable asbestos, asbestos containing material, presumed asbestos containing material, or suspect miscellaneous asbestos containing material.