

# Massachusetts Technical Teacher Testing Program Carpentry Content Outline

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## Written and Performance Exam General Overview

- The intent of this exam is to assess your ability to teach the skills found in the Massachusetts Technical Education Framework.
- This exam is aligned to the frameworks which can be accessed [here](#).
- Many questions and tasks require a synthesis of knowledge based on experience in the field and may not be found in any book.
- Candidates are encouraged to prepare for their exam by reviewing textbooks and reference material which has been listed as part of this exam outline. These resources can be found using online search tools, online vendors, and websites.
- Contact the Technical Teacher Testing Office if you need further assistance in locating resources listed in the exam outline.
- Use this exam outline and the Massachusetts Technical Education Framework to focus your preparation for the exam.

## Written Exam

- Number of Questions: 100
- Administration Time: 3 hours
- Administration Method: Remote Proctoring Online Session

## Written Exam Content Coverage

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**10%**    ***Health and Safety***

**6%**    ***Technical Plans and Prints***

**1%**    ***Specifications***

**12%**    ***Fundamentals of Carpentry***

**4%**    ***Hand Tools***

**6%**    ***Power Tools***

**9%**    ***Ladders and Scaffolds***

**25%**    ***Framing***

**20%**    ***Finish Carpentry***

5% **Commercial Carpentry**

2% **Energy Efficient Systems**

### Written Exam Reference Materials (Reference Current Edition)

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- **Modern Carpentry** by Willis H. Wagner and Howard Bud Smith (Goodheart-Willcox)
- **Carpentry** by Leonard Koel (American Technical Publishers)
- **780 CMR Chapter 36: One and Two Family Dwellings, State Building Code** by Commonwealth of Massachusetts
- **29 CFR Part 1926 Safety and Health Regulations for Construction** by U.S. Department of Labor, Occupational Safety and Health Administration

### Materials Needed for the Written Exam

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- A four-function calculator is included in the online testing system. No other calculators are permitted.
- Scrap paper and pencil/pen are permitted.

### Written Exam Sample Items

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Each question on the exam consists of one incomplete sentence or question followed by four choices. Some items reference an image or diagram. A few sample items are included below; the correct answer is designated with an asterisk (\*).

On steep roofs when roof brackets are being used:

- a. no guardrails are needed.
- b. pump jacks should be in place.
- \*c. personal fall protective equipment must be worn.
- d. wall brackets must be in place.

A roof that would have eight roof surfaces when installed on a 30 ft. x 36 ft. rectangular building is called a:

- a. gambrel.
- b. hip.
- c. gable.
- \*d. mansard.

## Performance Exam

- Administration Time: 4 hours
- Administration Method: Onsite at an approved Teacher Testing Location

### Performance Exam Content Coverage

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- 17% Wall Framing**
- Layout Walls
- 22% Roof Framing**
- Layout Common Rafter
- 26% Stair Construction**
- Layout and Cut Rough Stringer
- 26% Interior Finish**
- Install Window Casing
  - Install Crown and Window Trim Moldings
  - Complete Joinery Project Using Hand Tools and Power Miter Box
- 9% Safety**
- Maintain Compliance with OSHA Regulations at All Times
  - Operate All Power Tools According to Industry Standards

### Materials Required for the Performance Exam (Candidate Must Supply)

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- Face mask (cotton face covering or respirator which fully cover the nose and mouth)
  - Safety Glasses with Side Shields
  - Industry-Approved Work Clothes (no loose clothing, jewelry, or shorts; long hair must be restrained)
  - Industry-Approved Work Boots

### Recommended Tool/Equipment List

- 2 Sawhorses
- Portable Circular Saw
- Extension Cords
- 3/8" Cordless Drill
- Drill Bits and Accessories
- Framing Square
- Stair Gauges
- Combo Square
- Clamps
- Coping Saw and Sharp Blades
- Crosscut Saw
- Hammer
- Set of Nail Sets
- Block Plane
- Set of Chisels
- Set of Screwdrivers
- Sharpening Stone
- Awl
- Tape Measure
- 6' Folding Rule
- Pencils
- Utility Knife
- Back Saw
- Wood Files
- Rasp
- Pliers

**Note:** Power miter box will be provided. Candidates may bring additional hand tools as desired. Construction Conversion Calculators are not permitted. No books or notes will be allowed. Cell phones are prohibited during the exam administration.

## Onsite Performance Exam Requirements

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- Candidate must practice social distancing and wear the appropriate face covering that covers the nose and mouth while at the exam site.
- Testing sites may have individual requirements based on location and the current guidance from the Center for Disease Control and Prevention (CDC).

## Performance Exam Reference Materials (Reference Current Edition)

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- **Safety Orientation** by NCCER (Pearson Prentice Hall) [www.crafttraining.com](http://www.crafttraining.com)
- **OSHA Regulations** [www.osha.gov](http://www.osha.gov)
  - [1910.1200 - Hazard Communication](#)
  - [1910 Subpart I - Personal Protective Equipment](#)