

Massachusetts CTE Teacher Testing Program

Graphic Communications Content Outline

Written and Performance Exam General Overview

- The intent of this exam is to assess the candidate's ability to teach the skills found in the Massachusetts Technical Education Framework.
- The written exam is a state-developed exam aligned to the frameworks which can be accessed [here](#). The performance exam is a NOCTI-developed teacher test and has been determined by DESE to align to the state frameworks.
- Many questions and tasks require a synthesis of knowledge based on experience in the field and may not be found in any book.
- Use this exam outline and the Massachusetts Technical Education Framework to focus your preparation for the exams.
- Candidates are encouraged to prepare for their written exam by reviewing textbooks and reference material which have been listed as part of this exam outline. These resources can be found using online search tools, online vendors, and websites.

Written Exam

- Number of Questions: 100
- Administration Time: 3 hours
- Passing Score: 70.0%
- Administration Method: Remote Proctored Online Testing Session

Written Exam Content Coverage

10% *Graphic Communications Safety Knowledge and Skills*

5% *Job Engineering Skills for Graphic Communications*

- Project Management
- Measuring Systems
- Estimate Costs

10% *Digital File Preparation*

25% *Graphic Design Practices*

- Typography
- Elements of Design
- Manipulate and Scan Images and Materials
- Page Layout Practices

10% *Preparation and Assembly Practices for Output to Various Media*

- File Management
- Pre-Flight and Output Practices

25% Offset Print Production Practices

- Feeder and Registration
- Inking and Dampening
- Cylinder Systems
- Delivery Systems
- Make-Ready on an Offset Press
- Printing Operations on an Offset Press

8% Additional Printing Processes Used in Graphic Communications

- Screen Printing

7% Finishing Practices

- Binding and Finishing

Written Exam Reference Materials (Reference Current Edition)

- **Offset Lithographic Technology** by Kenneth F. Hird (Goodheart-Willcox)
- **Graphic Communications: The Printed Image** by Z.A. Prust (Goodheart-Willcox)
- **Printing in a Digital World** by David Bergsland (Cengage Learning)
- **Solving Sheet Fed Offset Press Problems** by Dejidas, Eldred, Prince, and Suthons (GATF Publishing)

Materials Needed for the Written Exam

- 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

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 (*).

What would you do to remedy piling when printing?

- Increase the water.
- Re-adjust pressures.
- Change the offset blanket.
- Wash press and change ink. (*)

Which of the following is a graphic display that allows quick movement from one application to another without exiting the application?

- Input device
- Windows-like environment (*)
- Storage device
- LPI

NOCTI Performance Exam

- Administration Time: 2 hours and 15 minutes
- NOCTI Criterion-Referenced Cut Score/Passing Score: 96.6%
- Administration Method: Onsite at a DESE approved Massachusetts Area Testing Center (MATC) location. Candidates must register and schedule their exam session through NOCTI.

Performance Exam Content Coverage

62% Design and Pre-Press

Participant will plan and create original artwork, create thumbnail sketches, and apply design principles; select correct software, prepare a rough layout to scale, set up the page and use an appropriate font, output a comprehensive proof, proofread and output final copy.

38% Paper Drill, Shrink Wrap, Package, and Prepare for Pick-Up

Participant will scan the provided images, print copies, cut 80 postcards, paper drill or punch a hole, and shrink wrap or paper wrap. Prepare and print a mailing label.

Performance Exam Requirements

Candidate Supplied

Candidates must bring all appropriate Personal Protective Equipment (PPE), attire/uniform, and any other safety items as is routinely expected to be used by an employee in the related industry. If the candidate does not bring what is needed to safely complete all jobs on the exam as required in the workplace, the testing session will need to be rescheduled at the candidate's expense.

Site Supplied

Additional equipment and supplies needed to complete the jobs on the performance test will be provided by the testing site.

Performance Exam Site Requirements

Testing sites may have individual requirements based on location and any relevant and current guidance from the Center for Disease Control and Prevention (CDC).