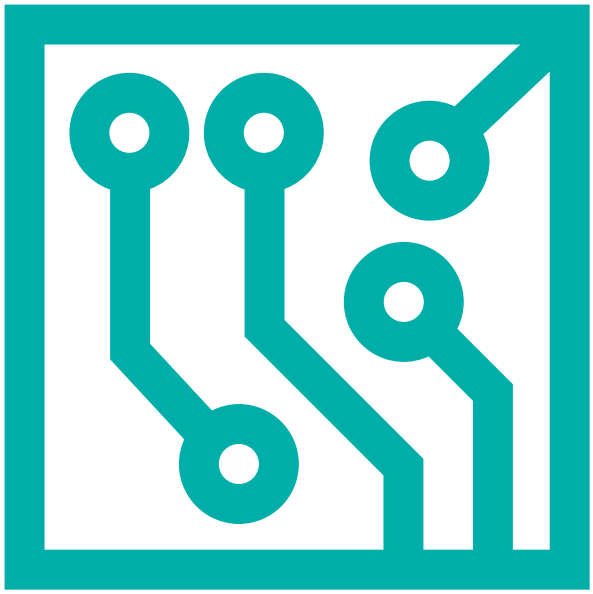
NOCTI

Teacher Credential Blueprint



Graphic Production Technology

Code: 5948 / Version: 01

Original Release: 2018. Content Review: 2026. All Rights Reserved.

General Assessment Information

Blueprint Contents

General Assessment Information
Written Assessment Information
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Test Type: The Graphic Production Technology assessment is included in NOCTI's Teacher assessment battery. Teacher assessments measure an individual's technical knowledge and skills in a proctored proficiency examination format. These assessments are used in a large number of states as part of the teacher licensing and/or certification process, assessing competency in all aspects of a particular industry. NOCTI Teacher tests typically offer both a written and performance component that must be administered at a NOCTI-approved Area Test Center. Teacher assessments can be delivered in an online or paper/pencil format.

Revision Team: The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the states of Michigan, Mississippi, New Jersey, and Pennsylvania.

Content Review: A content review is an independent, comprehensive review by Subject Matter Experts to evaluate content accuracy, the currency of technical material, and relevance to current industry practices.

CIP Code

10.0305- Graphic and Printing Equipment Operator, General Production

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Career Cluster - Arts, A/V Technology, and Communications

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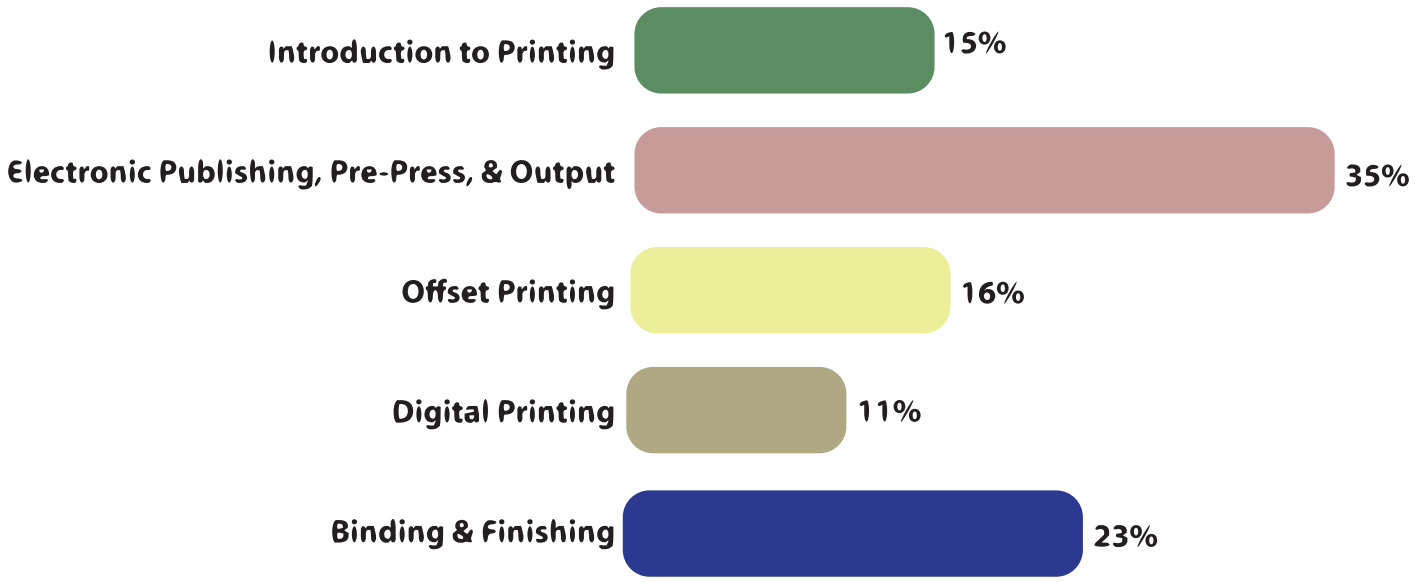
51-5112.00- Printing Machine Operators

Written Assessment

NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 3 hours
Number of Questions: 168
Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Introduction to Printing

- Demonstrate knowledge of relevant OSHA standards, environmental protection, and safety procedures
- Explain the importance of quality control procedures and consistency of production, as it relates to customer satisfaction
- Identify workflow, processes (including software), and equipment in graphic communications
- Demonstrate mathematical concepts relating to print production, estimating materials/service costs, and preparing work orders
- Understand legal aspects of copyrighted materials
- Identify and apply printing terminology
- Describe various methods of graphic reproduction (e.g., offset, screen, digital printing, flexography, letterpress)



(Continued on the following page)

Specific Standards and Competencies Included in this Assessment (continued)

Electronic Publishing, Pre-Press, and Output

- Identify and demonstrate principles of layout and design
- Identify type terminology, styles, and uses
- Identify proofreader's marks, proofread, and mark-up copy
- Make conversions using printer systems of measurement
- Demonstrate steps in the creative process (e.g., thumbnail, rough, comprehensive)
- Crop, scale, and manipulate images
- Prepare elements for a variety of imposition layouts
- Demonstrate basic computer knowledge (e.g., storage, troubleshooting, peripherals)
- Demonstrate proficiency in computer graphics and page layout applications
- Demonstrate knowledge of pre-flighting electronic files
- Output color separations from digital files
- Adjust work to meet the needs of the customer
- Demonstrate ability to calculate paper costs for a job
- Differentiate between web, multimedia, and print graphics
- Exhibit knowledge of PDF workflow
- Demonstrate knowledge of different color modes and color management (e.g., CMYK and RGB)
- Exhibit familiarity with input and output devices

Offset Printing

- Identify components of an offset press and demonstrate knowledge of operating procedures
- Demonstrate understanding of press chemistry (e.g., ink tack, fountain solutions, solvents, dryers)
- Describe general maintenance and cleaning of an offset press
- Demonstrate knowledge of Pantone Matching System© (PMS) colors
- Understand the importance of printing in register and trapping

(Continued on the following page)

Specific Standards and Competencies Included in this Assessment (continued)

Digital Printing

- Identify components of digital output devices and demonstrate knowledge of operating procedures
- Demonstrate understanding of digital consumables (e.g., toner, fuser, waste)
- Describe general maintenance and cleaning of digital output devices
- Demonstrate proper handling and storing of various print paper
- Troubleshoot digital printing problems (e.g., toner scatter, paper jams)
- Explain the importance of the Raster Image Processor (RIP) device and its functions

Binding and Finishing

- Set up, adjust, and operate a paper cutter
- Differentiate between the types of folds
- Demonstrate understanding of perforating, scoring, embossing, drilling, and die-cutting
- Perform preventive maintenance on bindery and finishing equipment
- Differentiate between the types of stitches
- Explain different methods of binding and assembling (e.g., collating and gathering)
- Explain assembly of carbonless paper forms
- Calculate the number of cut sheets from stock parent sheets
- Identify properties and use of various paper stocks
- Differentiate between spot coating, flood varnish, and UV coating
- Identify different packaging procedures (e.g., shrink wrapping, padding)

Sample Questions

Pre-flighting in a digital press can analyze the
A. file resolution
B. quality of the paper
C. copyright
D. calibration of the press

Type that is set around two or more sides of a picture or illustration is called
A. copyfitting
B. justification
C. text wrap
D. imposition

Screen printing is commonly used for
A. books
B. billboards
C. textiles
D. currency

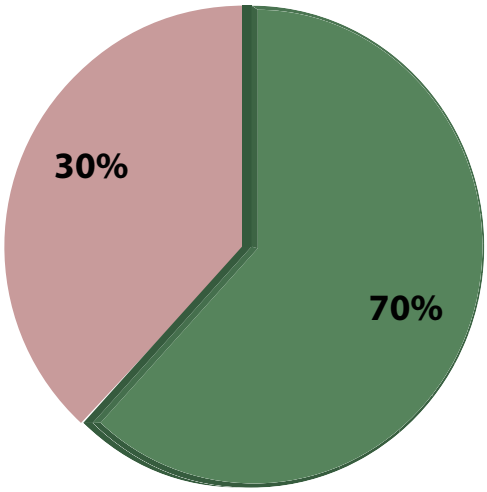
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Antique, smooth, and coated refer to
A. recycled paper
B. paper sizes
C. paper colors
D. paper finishes

Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

Administration Time: 2 hours
Number of Jobs: 2



Areas Covered:

70% Design and Pre-Press
Participant will open provided graphic file, make required changes, proofread project and print.

30% Print, Shrink Wrap, Package, and Prepare for Pick-Up
Participant will print copies, cut 46 invitations, trim, and wrap two packages. Create and secure a legible label and clean work area.

Sample Job

Design and Pre-Press

Maximum Time: 45 minutes

Participant Activity: Participant will make required changes to the provided graphic file, including setting up a new layout, changing the background, adjusting colors and other elements, inserting a text box according to specific design instructions, and spell checking and proofreading for errors. Participant will save the document, package the file, and print separations.

