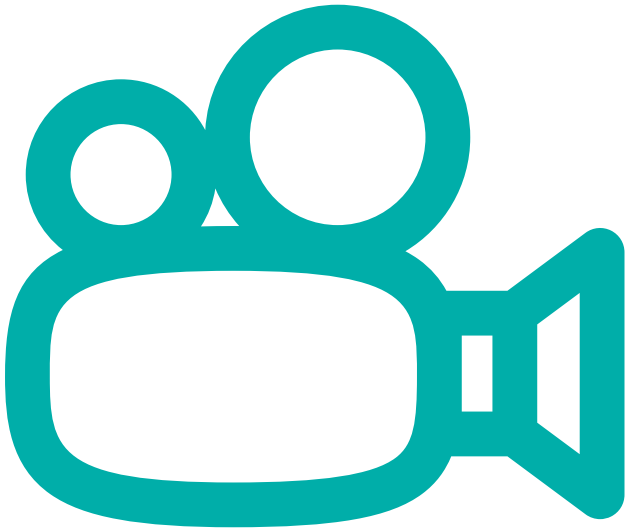
NOCTI

Job Ready Credential Blueprint



Graphic Production Technology

Code: 4342 / Version: 01

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General Assessment Information

Blueprint Contents

General Assessment Information
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Test Type: The Graphic Production Technology industry-based credential is included in NOCTI's Job Ready assessment battery. Job Ready assessments measure technical skills at the occupational level and include items which gauge factual and theoretical knowledge. Job Ready assessments typically offer both a written and performance component and can be used at the secondary and post-secondary levels. Job Ready 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, 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

Learning that works for America CTE™

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

O*NET™ in*it

51-5112.00- Printing Machine Operators

Association for Career and Technical Education ACTE®

The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

NATIONAL COLLEGE CREDIT RECOMMENDATION SERVICE
University of the State of New York - Regents Research Fund

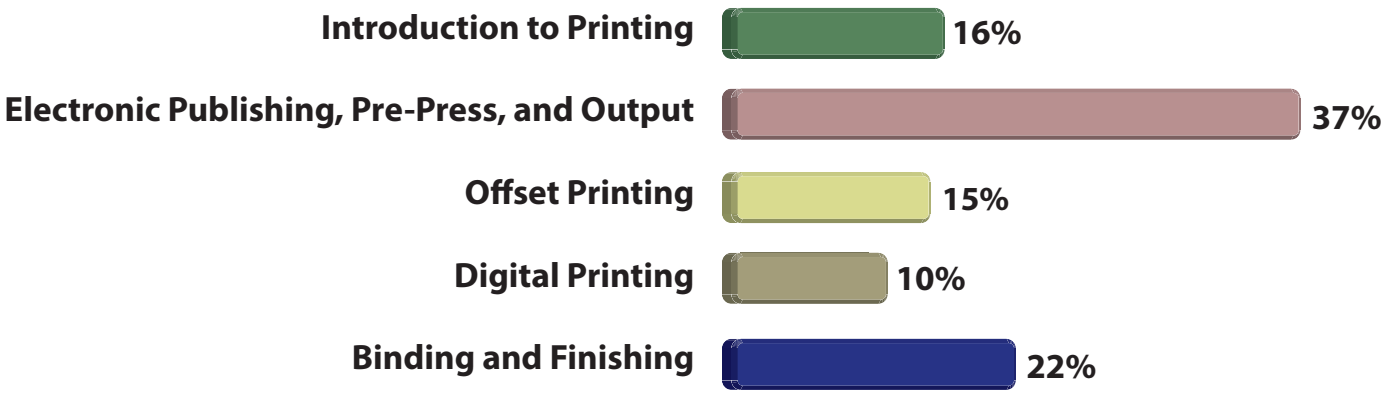
In the lower division baccalaureate/associate degree category, 3 semester hours in Graphic Production Technology

Written Assessment

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

Administration Time: 3 hours
Number of Questions: 174
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)

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Specific Standards and Competencies (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

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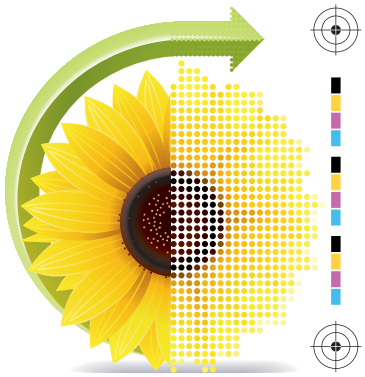
Specific Standards and Competencies (continued)

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

A picture that is in the public domain

A. has a copyright and may not be reproduced
B. may be reproduced without obtaining permission
C. can only be used for Public Service Announcements
D. requires specific permissions prior to reproduction

Antique, smooth, and coated refer to

A. recycled paper
B. paper sizes
C. paper colors
D. paper finishes

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Sample Questions (continued)

During the press run, the press sheets should be checked against

A. a signed hard proof
B. an onscreen soft proof
C. an emailed soft proof
D. a black and white laser hard proof

On an offset press, the image is transferred from the plate to the

A. blanket
B. image carrier
C. impression cylinder
D. paper

An ink that becomes waterlogged on a lithographic press is said to be

A. extended
B. emulsified
C. reduced
D. tinted

What maintenance procedure for a paper folder is recommended by the manufacturer?

A. adjust the fold plate
B. lubricate all points
C. keep paper in the feeder
D. adjust the double detector

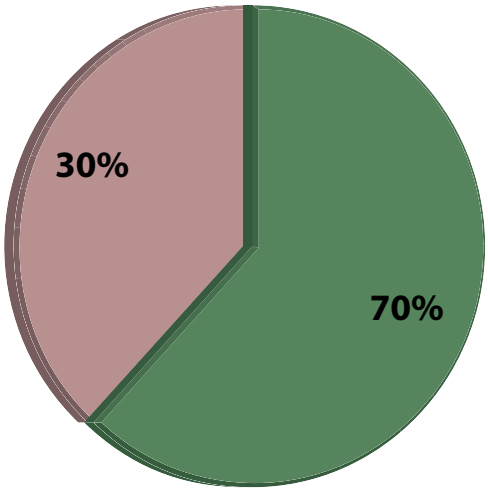
When paper is misfed or wrinkles repeatedly, the first thing to do is to

A. ensure the proper paper is loaded correctly and not filled above the MAX line
B. ensure that there is enough fuser agent in the machine
C. check that the color space used in the file is compatible with the press
D. verify that the toner is seated properly

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.

Notes