NOCTI

State Customized Credential Blueprint

Communication Technologies (PA)

Code: 8095 / Version: 01

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General Assessment Information

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Test Type: The Communications Technologies PA Assessment was developed based on a Pennsylvania statewide competency task list and contains a multiple-choice and performance component. This assessment is meant to measure technical skills at the occupational level and includes items which gauge factual and theoretical knowledge.

Development Team: The assessment content is based on input from Pennsylvania educators who teach in approved career and technical education programs.

CIP Code

10.9999- Communications Technologies/Technicians and Support Services, Other

Learning that works for America CTE™

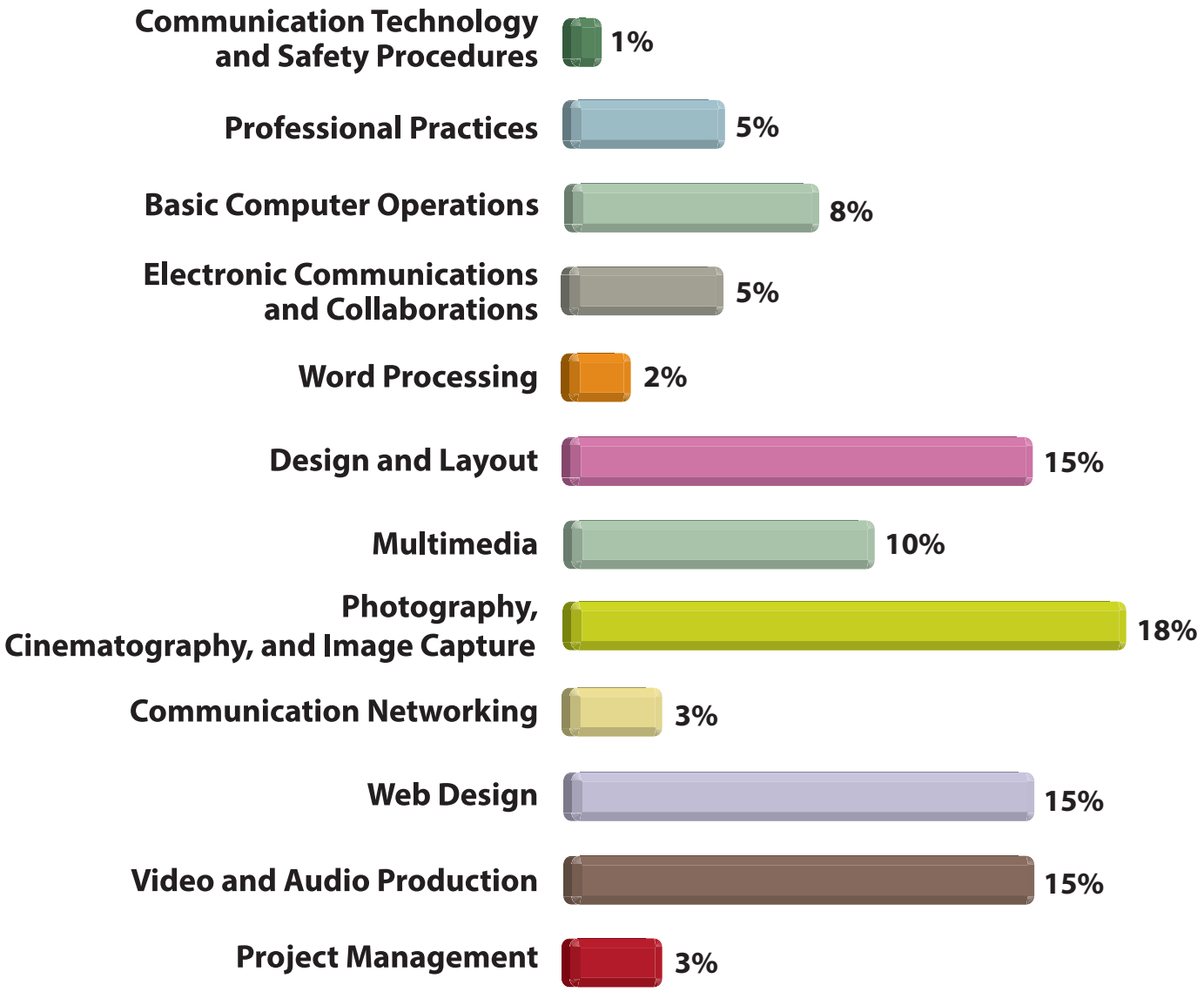
Career Cluster 3- Arts, A/V Technology, and Communications

Written Assessment

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

Administration Time: 3 hours
Number of Questions: 200
Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Communication Technology and Safety Procedures

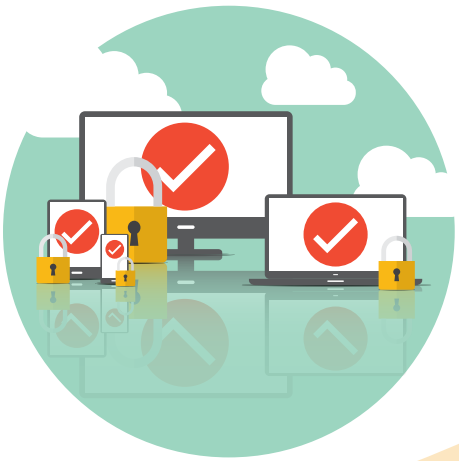
- Explain communication technology and why it is important

Professional Practices

- Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology (e.g., presentations, podcasts, blogs, wiki's, and forums)
- Use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources collaboratively
- Produce media for an intended target audience, including those with disabilities
- Demonstrate an understanding of and observe copyright laws when producing media
- Describe ethics in relation to communication technology

Basic Computer Operations

- Define encryption and explain why it is necessary
- Define and illustrate current terminology associated with computers
- Research accessibility issues related to information technology
- Identify file formats for use in multimedia productions
- Demonstrate a mastery of terminology related to computer applications
- Create a file management system
- Identify different types of software, general concepts related to software categories



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Specific Standards and Competencies (continued)

Electronic Communications and Collaborations

- Define terminology associated with electronic communications
- Identify different types of information sources on the Internet
- Use a web browser
- Identify the appropriate use of electronic mail and "netiquette"
- Demonstrate basic terminology related to locating, evaluating, and collecting information from a variety of sources

Word Processing

- Use basic word processing commands to create, format, and edit documents
- Identify common on-screen elements of a word processing application

Design and Layout

- Identify and describe the basic components of a design application
- Identify, describe, and demonstrate the principles of typography
- Understand design principles including color theory, composition and layout, perspective, and typography
- Evaluate and apply the principles of design in various visual media
- Demonstrate interconnections between different software applications
- Develop, publish, and present an advertising campaign
- Use a vector-based application
- Use a bitmap-based application

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Specific Standards and Competencies (continued)

Multimedia

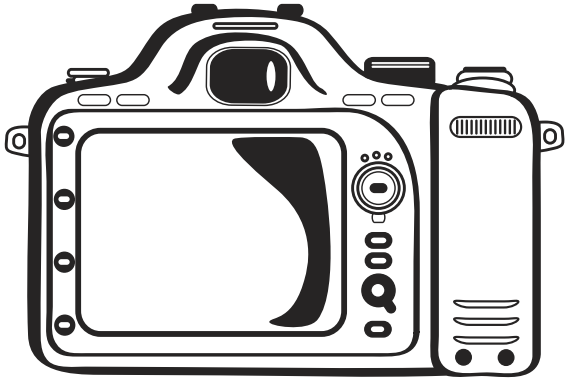
- Use proper terminology related to presentation applications
- Format a multimedia presentation
- Identify the appropriate use of presentation hardware tools, such as an LCD projector, interactive white board
- Compose a presentation that includes a script, text, sound, images, animation, and video
- Create media for multi-platform distribution (e.g., cell, web, mobile devices, television)

Photography, Cinematography, and Image Capture

- Demonstrate proper operation of the digital still and video cameras
- Import, capture, and/or transfer image/video from cameras
- Identify the parts of a digital camera
- Apply basic principles of exposure
- Apply basic principles of focus
- Apply white balance procedures to the production environment
- Apply basic principles of composition/field of view
- Demonstrate the proper use of support systems (e.g., monopod, tripods)
- Monitor and record proper audio levels
- Identify types of recording codecs and formats
- Identify various video recording media

Communication Networking

- Use proper terminology and components of a communication network
- Identify the types of communication networks, (e.g., wifi, Bluetooth®, LAN)
- Describe the various network protocol (e.g., FTP, SMTP, HTTP)



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Specific Standards and Competencies (continued)

Web Design

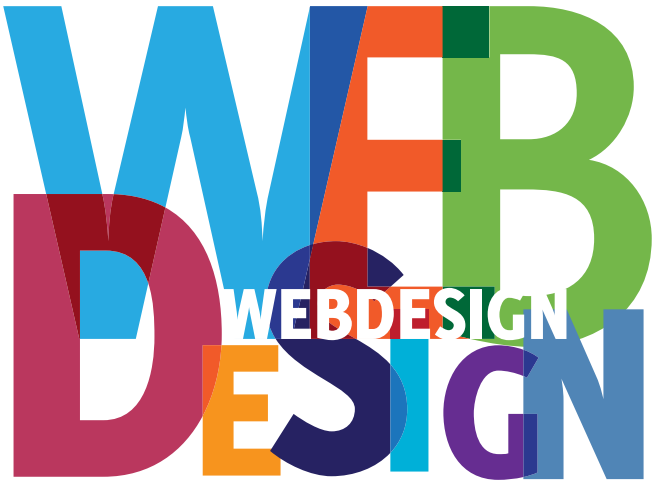
- Identify and describe the properties of HTML, CSS, and various scripting languages (e.g., JavaScript™, PHP)
- Identify and describe the properties of different types of image compression formats for the web (e.g., .jpeg, .tiff, .png)
- Identify and apply basic HTML elements to construct a web page
- Integrate graphics and links to an HTML page
- Demonstrate the properties of typography in HTML and CSS
- Evaluate page design

Video and Audio Production

- Identify appropriate target audience
- Identify and use various script formats (e.g., radio, TV, 2-column, screen play)
- Develop a storyboard
- Import, capture, and/or transfer media into non-linear editor
- Demonstrate use of video and audio effects and transitions
- Add titles to a video production
- Export finished project for distribution
- Identify types of microphones and pickup patterns

Project Management

- Create and manage a production schedule
- Create a project budget using spreadsheet software
- Given a budget, design a workstation for a specific multimedia application



Sample Questions

The designer needs to know the _____ before beginning a media project.

A. history
B. purpose
C. texture
D. balance

A designer should complete the design process using the standardized sequence of

A. thumbnails, roughs, then illustration
B. roughs, comprehensives, thumbnails, then final product
C. comprehensives, thumbnails, roughs, then final product
D. thumbnails, roughs, comprehensives, then final product

Image resolution of an LCD projector is measured in

A. points
B. pixels
C. inches
D. picas

An off-camera narration performed by talent during a video commercial is known as a/an

A. overdub
B. voice-over
C. script
D. talkback

What technology is used to specify different web layouts for display and print?

A. JavaScript™
B. CSS
C. HTML
D. Perl

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Sample Questions (continued)

Which of the following items could be described as a piece of communications technology?

A. automobile
B. electric relay
C. telephone
D. light bulb

The process of digitally protecting a file is

A. locking
B. filter
C. encryption
D. wrapping

A list of words found in the head of a web page that might be entered into a search engine search field are called

A. meta tags
B. descriptors
C. content keys
D. keywords

To erase a character to the right of the cursor, use the _____ key.

A. space bar
B. escape
C. delete
D. right arrow

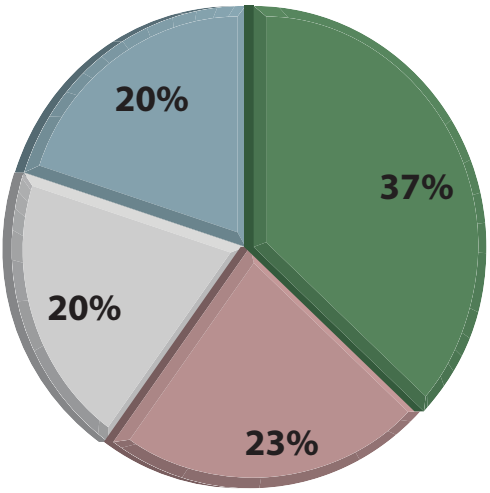
A URL is an Internet address that consists of information about the document type and the _____ used.

A. domain site
B. absolute path
C. email address
D. transport protocol

Performance Assessment

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: 3 hours
Number of Jobs: 4



Areas Covered:

37% Image Composition
Participant will follow instructions for several still or video shots, demonstrating correct composition, proper focus, and white balance

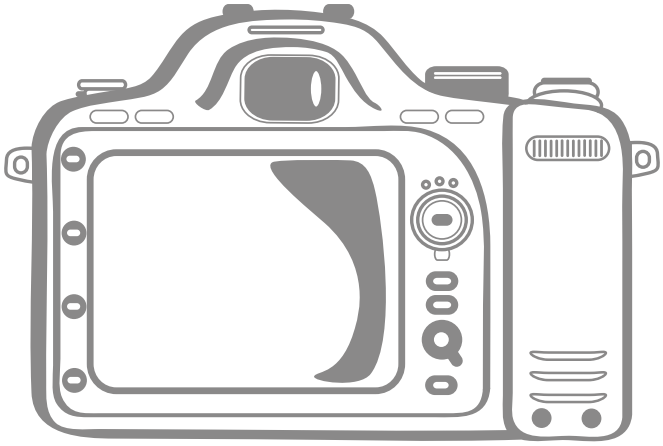
23% Image Editing/Manipulation
Participant will choose either still photography or video option and edit the images, correct color, and create sizes (photograph option), using files provided on the Client Services Center.

20% Design
Participant will use typography and graphic shapes, graphic size, thumbnails, roughs, and comprehensives to create a design as described.

20% Digital Presentation
Participant will create either a website or presentation format according to the scenario, with background, images, formatting, and navigation or transitions included in a specific length of presentation.

Sample Job

Image Composition

Maximum Time: 45 minutes

Participant Activity: Using a still or video camera, the participant will demonstrate the ability to shoot various types of shots; ensure appropriate composition of shots; and each shot must be properly exposed and demonstrate correct focus.