This Ohio Competency Analysis Profile (OCAP), derived from a modified Developing a Curriculum (DACUM) process, is a current comprehensive and verified employer competency program list for graphic communications--commercial photography. Each unit (with or without subunits) contains competencies and competency builders that identify the occupational, academic, and employability skills needed to enter this occupational area. Within that outline are three levels of items: core, advancing, and futuring. Core items are essential to entry-level employment. Advancing items are needed to advance in a given occupation. Futuring items are needed to enter and remain in a given occupation 3 or 4 years from now. This profile contains 15 units: (1) professional behavior; (2) basic lab skills; (3) cameras and exposure control; (4) 35 millimeter single lens-reflex camera; (5) black-and-white negative development; (6) photographs for presentation printing; (7) medium format cameras; (8) video cameras; (9) lighting and backdrops; (10) portfolio; (11) digital processing; (12) color transparency films for audiovisual use; (13) printing color negatives; (14) professionalism; and (15) employability skills.
OHIO'S COMPETENCY ANALYSIS PROFILE

GRAPHIC COMMUNICATIONS
COMMERCIAL PHOTOGRAPHY

Employer Verification Panel

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What is OCAP?

"A comprehensive and verified employer competency list will be developed and kept current for each program." This is the second objective of Imperative 3 of the Action Plan for Accelerating the Modernization of Vocational Education: Ohio's Future at Work. Ohio's Competency Analysis Profile (OCAP) lists are the Division of Vocational and Career Education's response to that objective. OCAP lists evolve from a modified DACUM process involving business, industry, labor, and community agency representatives from throughout Ohio. The OCAP process is directed by the Vocational Instructional Materials Laboratory at The Ohio State University's Center on Education and Training for Employment.

How is OCAP used?

Each OCAP contains units (with and without subunits), competencies, and competency builders that identify the occupational, academic, and employability skills needed to enter a given occupation or occupational area. Within that outline there are three levels of items: core, advancing, and futuring. Core items are essential to entry-level employment. These items are required to be taught and will be the basis for questions on the state vocational competency tests (scheduled to begin in FY93). Advancing items (marked with one asterisk) are needed to advance in a given occupation. Futuring items (marked with two asterisks) are needed to enter and remain in a given occupation three to four years from now.

Districts may add as many units, subunits, competencies, and competency builders as desired to reflect local employment needs, trends, and specialties. Local advisory committees should be actively involved in the identification and verification of additional items. Using OCAP lists, instructors will be able to formulate their courses of study and monitor competency gains via the new competency testing program.

The Employability Skills portion of this list was verified by the following employer panel:

Gary J. Corrigan, Dana Corporation, Ottawa Lake, Michigan
David Crooks, Bowling Green State University Union Food Service, Bowling Green, Ohio
Pat Doerman, Farrow's Harley-Davidson, Columbus, Ohio
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OHIO COMPETENCY ANALYSIS PROFILE

GRAPHIC COMMUNICATIONS: COMMERCIAL PHOTOGRAPHY

UNIT 1: Professional Behavior

COMPETENCY 1.0.1: Adhere to safety rules/emergency procedures

COMPETENCY BUILDERS:

1.0.1.1 Wear appropriate eye protection
1.0.1.2 Wear protective or safety apparel as required
1.0.1.3 React to personal injury according to school policy
1.0.1.4 Locate fire extinguishers and fire exits
1.0.1.5 React to fire hazards
1.0.1.6 Read material safety data sheet (MSDS) labels and handle materials accordingly
1.0.1.7 Handle cutting tools safely
1.0.1.8 Check and maintain all equipment on a regular basis

COMPETENCY 1.0.2: Comply with lab conduct rules

COMPETENCY BUILDERS:

1.0.2.1 Respect the rights and property of others
1.0.2.2 Exhibit professional actions
1.0.2.3 Follow established conduct rules

COMPETENCY 1.0.3: Demonstrate leadership qualities

COMPETENCY BUILDERS:

1.0.3.1 Demonstrate good attendance and punctuality
1.0.3.2 Participate in leadership activities
1.0.3.3 Complete lab management assignments

COMPETENCY 1.0.4: Dress according to established code

COMPETENCY BUILDERS:

1.0.4.1 Practice good grooming habits
1.0.4.2 Dress appropriately for the task at hand

COMPETENCY 1.0.5: Demonstrate interaction skills

COMPETENCY BUILDERS:

1.0.5.1 Communicate effectively with peers
1.0.5.2 Communicate effectively with supervisors

* Advancing
** Futuring
COMPETENCY 1.0.6: Complete assignments within deadlines

COMPETENCY BUILDERS:
1.0.6.1 Practice effective time management
1.0.6.2 Maintain progress chart for assignments

COMPETENCY 1.0.7: Explore career opportunities in commercial photography

COMPETENCY BUILDERS:
1.0.7.1 Interview practitioners
1.0.7.2 Tour local facilities
1.0.7.3 Discuss opportunities with guest speakers
1.0.7.4 Research trade magazines and newspapers
1.0.7.5 Maintain file of relevant articles
1.0.7.6 Demonstrate mastery of terminology, vocabulary, and jargon

UNIT 2: Basic Lab Skills

COMPETENCY 2.0.1: Perform linear measuring procedures

COMPETENCY BUILDERS:
2.0.1.1 Measure in inches and feet
2.0.1.2 Measure in millimeters, centimeters, and meters
2.0.1.3 Convert metric measurements into English measurements
2.0.1.4 Convert English measurements into metric measurements

COMPETENCY 2.0.2: Perform volume-measuring procedures

COMPETENCY BUILDERS:
2.0.2.1 Measure volume in ounces and gallons
2.0.2.2 Measure volume in milliliters and liters
2.0.2.3 Convert metric measurements into English measurements
2.0.2.4 Convert English measurements into metric measurements
COMPETENCY 2.0.3: Perform temperature-measuring procedures

COMPETENCY BUILDERS:

2.0.3.1 Measure temperature in Fahrenheit
2.0.3.2 Measure temperature in centigrade
2.0.3.3 Convert centigrade into Fahrenheit
2.0.3.4 Convert Fahrenheit into centigrade

COMPETENCY 2.0.4: Perform essential mathematical calculations

COMPETENCY BUILDERS:

2.0.4.1 Calculate filter factors
2.0.4.2 Calculate bellows factors
2.0.4.3 Calculate reductions and enlargements using proportion scale
2.0.4.4 Calculate neutral density exposure value using \(0.3 = \text{one stop}\)

COMPETENCY 2.0.5: Perform paperwork

COMPETENCY BUILDERS:

2.0.5.1 Prepare and schedule work orders
2.0.5.2 Fill out time cards
2.0.5.3 Maintain complete job and reference files
2.0.5.4 Process release forms

COMPETENCY 2.0.6: Purchase equipment, supplies, and outside services

COMPETENCY BUILDERS:

2.0.6.1 Maintain inventory
2.0.6.2 Purchase outside services
2.0.6.3 Investigate equipment and supply costs
2.0.6.4 Handle legal considerations and contract negotiations
2.0.6.5 Investigate current copyright and usage laws

* Advancing
** Futuring
UNIT 3: Cameras and Exposure Control

COMPETENCY 3.0.1: Differentiate camera formats

COMPETENCY BUILDERS:

3.0.1.1 Identify 35mm camera and film format
3.0.1.2 Identify 6" x 4.5" camera and film format
3.0.1.3 Identify 6" x 6" camera and film format
3.0.1.4 Identify 6" x 7" camera and film format
3.0.1.5 Identify 6" x 8" camera and film format
3.0.1.6 Identify 6" x 9" camera and film format
2.0.1.7 Identify 4" x 5" camera and film format
3.0.1.8 Identify 8" x 10" camera and film format
3.0.1.9 Specify primary uses of different camera formats

COMPETENCY 3.0.2: Memorize apertures

COMPETENCY BUILDERS:

3.0.2.1 Memorize F stops between 1.4 and 128
3.0.2.2 Differentiate exposure effects from one F stop to the next
3.0.2.3 Differentiate increase or decrease in depth of field

COMPETENCY 3.0.3: Memorize shutter speeds

COMPETENCY BUILDERS:

3.0.3.1 Memorize shutter speeds between 64 seconds and 1/8000 plus T (time) and B (bulb)
3.0.3.2 Differentiate exposure effects from one shutter speed to the next
3.0.3.3 Differentiate effects of shutter speed on motion

COMPETENCY 3.0.4: Memorize film speed sequencing

COMPETENCY BUILDERS:

3.0.4.1 Memorize film speed sequencing from ISO 6 to ISO 6400
3.0.4.2 Assess difference in sensitivity between ISO 100 and 200 and between ISO 400 and 200
3.0.4.3 Determine the relationship between ISO and film grain structure
COMPETENCY 3.0.5: Calculate equivalent exposures

COMPETENCY BUILDERS:

3.0.5.1 Vary shutter speed and aperture with a set ISO (ASA)
3.0.5.2 Vary aperture and ISO (ASA) with a set shutter speed
3.0.5.3 Vary ISO (ASA) and shutter speed with a set aperture

COMPETENCY 3.0.6: Use a handheld meter

COMPETENCY BUILDERS:

3.0.6.1 Remove meter from case
3.0.6.2 Ascertain incident or reflective readings
3.0.6.3 Handle meter properly to obtain consistent readings
3.0.6.4 Determine correct exposure choices
3.0.6.5 Apply exposure to camera

UNIT 4: 35MM Single Lens-Reflex Camera

COMPETENCY 4.0.1: Perform checkout procedure

COMPETENCY BUILDERS:

4.0.1.1 Identify viewfinder and its parts, shutter speed dial, advance lever, ISO (ASA) setting, lens lock button, rewind release, and rewind knob
4.0.1.2 Remove lens from the body
4.0.1.3 Replace lens on the body
4.0.1.4 Clean lens

COMPETENCY 4.0.2: Load and unload film

COMPETENCY BUILDERS:

4.0.2.1 Open camera back
4.0.2.2 Clean camera back
4.0.2.3 Set ISO (ASA) to match film
4.0.2.4 Insert film
4.0.2.5 Load film onto takeup spool
4.0.2.6 Close camera back and check rotation of rewind knob
4.0.2.7 Advance film to frame #1
4.0.2.8 Press film release button
4.0.2.9 Rewind film

* Advancing
** Futuring
COMPETENCY 4.0.3: Use automatic mode

COMPETENCY BUILDERS:

4.0.3.1 Load film
4.0.3.2 Set ISO (ASA) to match film
4.0.3.3 Identify shutter speed indicator in viewfinder
4.0.3.4 Identify aperture indicator in viewfinder
4.0.3.5 Identify focusing system in viewfinder (i.e., split image, ground glass, or grid pattern)
4.0.3.6 Focus camera and expose film shutter speed between 1/60 second and 1/1000 second according to camera's manual
4.0.3.7 Rewind and unload film

COMPETENCY 4.0.4: Use manual mode

COMPETENCY BUILDERS:

4.0.4.1 Load film
4.0.4.2 Set ISO (ASA) to match film
4.0.4.3 Identify shutter speed indicator
4.0.4.4 Identify aperture indicator
4.0.4.5 Focus camera using any shutter speed between 1/60 second and 1/1000 second according to exposure instructions
4.0.4.6 Adjust aperture to correct exposure according to exposure instructions
4.0.4.7 Expose film
4.0.4.8 Rewind and unload film

COMPETENCY 4.0.5: Use shutter speed to stop and show motion

COMPETENCY BUILDERS:

4.0.5.1 Use faster shutter speeds to freeze moving objects
4.0.5.2 Use slower shutter speeds to show motion of moving objects

COMPETENCY 4.0.6: Use different lenses

COMPETENCY BUILDERS:

4.0.6.1 Install and use wide-angle lens
4.0.6.2 Install and use telephoto lens
COMPETENCY 4.0.7: Use aperture for depth-of-field control

COMPETENCY BUILDERS:

4.0.7.1 Set lens for zone focusing and expose 5 frames
4.0.7.2 Set lens for hyperfocal focusing and expose 5 frames
4.0.7.3 Use telephoto lens to demonstrate minimum depth of field
4.0.7.4 Use wide-angle lens to demonstrate maximum depth of field

COMPETENCY 4.0.8: Use various lens filters

COMPETENCY BUILDERS:

4.0.8.1 Identify and use light-balancing filters
4.0.8.2 Identify and use color-compensating filters
4.0.8.3 Identify and use special effects filters
4.0.8.4 Identify and use black-and-white contrast control filters

COMPETENCY 4.0.9: Differentiate light sources

COMPETENCY BUILDERS:

4.0.9.1 Identify daylight
4.0.9.2 Identify strobe light (electronic flash)
4.0.9.3 Identify different tungsten lights
4.0.9.4 Identify quartz light
4.0.9.5 Identify different fluorescent lights
4.0.9.6 Identify other sources of light (e.g., sodium discharge, mercury vapor, and halogen)

COMPETENCY 4.0.10: Differentiate characteristics of light sources

COMPETENCY BUILDERS:

4.0.10.1 Identify direct, diffused, and silhouette lighting
4.0.10.2 Identify directions of light

COMPETENCY 4.0.11: Use various light source filters

COMPETENCY BUILDERS:

4.0.11.1 Identify and use light-balancing filters
4.0.11.2 Identify and use color-compensating filters
4.0.11.3 Identify and use special effects filters

* Advancing
** Futuring
COMPETENCY 4.0.12: Differentiate between types of color negatives and transparency materials

COMPETENCY BUILDERS:

4.0.12.1 Distinguish characteristics between negatives and transparency materials
4.0.12.2 Associate negative and transparency materials with their appropriate light sources

COMPETENCY 4.0.13: Use handheld electronic flash unit

COMPETENCY BUILDERS:

4.0.13.1 Select appropriate types of electronic flashes
4.0.13.2 Demonstrate operation of different electronic flashes
4.0.13.3 Make proper camera settings for electronic flashes
4.0.13.4 Identify potential problems and solutions to using electronic flashes
4.0.13.5 Use fill flash method

UNIT 5: Black-and-White Negative Development

COMPETENCY 5.0.1: Set up sink

COMPETENCY BUILDERS:

5.0.1.1 Operate water valves
5.0.1.2 Operate temperature valve

COMPETENCY 5.0.2: Gather chemistry

COMPETENCY BUILDERS:

5.0.2.1 Determine what chemistry is needed
5.0.2.2 Obtain needed quantities of chemistry
5.0.2.3 Note potential safety hazards
5.0.2.4 Mix chemistry

COMPETENCY 5.0.3: Assemble hardware

COMPETENCY BUILDERS:

5.0.3.1 Gather tank, reels, thermometer, and graduate needed
5.0.3.2 Measure required amount of water into graduate
5.0.3.3 Read thermometer
5.0.3.4 Load steel reels
COMPETENCY 5.0.4: Process film

COMPETENCY BUILDERS:

5.0.4.1 Review steps in process
5.0.4.2 Ascertain developing time, chemistry temperature, and tank agitation
5.0.4.3 Perform steps of processing black-and-white film

COMPETENCY 5.0.5: Clean and dry film

COMPETENCY BUILDERS:

5.0.5.1 Mix and utilize wetting agent on black-and-white film
5.0.5.2 Operate film dryer

COMPETENCY 5.0.6: Perform maintenance procedures

COMPETENCY BUILDERS:

5.0.6.1 Clean and maintain sinks
5.0.6.2 Clean and maintain dryer
5.0.6.3 Clean floors
5.0.6.4 Check equipment

UNIT 6: Photographs for Presentation Printing

COMPETENCY 6.0.1: Perform checkout procedures

COMPETENCY BUILDERS:

6.0.1.1 Check safelight
6.0.1.2 Check equipment
6.0.1.3 Check for safety hazards

COMPETENCY 6.0.2: Prepare equipment

COMPETENCY BUILDERS:

6.0.2.1 Clean trays and tongs
6.0.2.2 Place trays and wash tub in sequence in sink
6.0.2.3 Gather necessary graduates and thermometers
COMPETENCY 6.0.3: Gather chemistry

COMPETENCY BUILDERS:
6.0.3.1 Obtain developer, stop bath, and fixer
6.0.3.2 Note potential safety hazards
6.0.3.3 Avoid chemical contamination
6.0.3.4 Use graduate for working solution mixtures
6.0.3.5 Verify chemical use times
6.0.3.6 Verify chemical exhaustion
6.0.3.7 Plan chemical sequence

COMPETENCY 6.0.4: Use enlarger

COMPETENCY BUILDERS:
6.0.4.1 Choose negative carrier and insert negative
6.0.4.2 Choose and operate lens for format used
6.0.4.3 Turn on enlarger light
6.0.4.4 Focus enlarger and turn off enlarger light
6.0.4.5 Activate timer

COMPETENCY 6.0.5: Make photogram

COMPETENCY BUILDERS:
6.0.5.1 Gather opaque, transparent, and translucent objects
6.0.5.2 Gather alternative lighting hardware
6.0.5.3 Follow basic rules of composition

COMPETENCY 6.0.6: Process photographic paper

COMPETENCY BUILDERS:
6.0.6.1 Determine processing sequence
6.0.6.2 Double-check for chemical contamination
6.0.6.3 Determine chemical use times, alternatives, temperatures, and chemical exhaustion
6.0.6.4 Agitate trays
6.0.6.5 Check wash sequence and times

COMPETENCY 6.0.7: Make test strip

COMPETENCY BUILDERS:
6.0.7.1 Use enlarger to make series of exposures
6.0.7.2 Process paper
6.0.7.3 Judge paper for maximum black

* Advancing  
** Futuring
COMPETENCY 6.0.8: Make proofsheet

COMPETENCY BUILDERS:

6.0.8.1 Use black-and-white negatives and paper in proofprinter
6.0.8.2 Make test strip
6.0.8.3 Judge exposure of a dry test strip
6.0.8.4 Make single proofsheet exposure
6.0.8.5 Process and dry paper

COMPETENCY 6.0.9: Make enlargement

COMPETENCY BUILDERS:

6.0.9.1 Insert negative and carrier into enlarger
6.0.9.2 Project negative image onto print easel
6.0.9.3 Make test strip
6.0.9.4 Judge test strip exposure
6.0.9.5 Make a single exposure for an enlargement

COMPETENCY 6.0.10: Use dodging and burning techniques

COMPETENCY BUILDERS:

6.0.10.1 Make enlargement
6.0.10.2 Identify areas for dodging during initial exposure
6.0.10.3 Identify areas for burning during supplemental exposure
6.0.10.4 Determine exposure variations for dodging and burning
6.0.10.5 Make an enlargement using dodging and burning techniques

COMPETENCY 6.0.11: Use contrast filters

COMPETENCY BUILDERS:

6.0.11.1 Make enlargement
6.0.11.2 Identify need for increase or decrease in tonal range of enlargement
6.0.11.3 Use contrast filter dial for exposure compensation
6.0.11.4 Use variable contrast filters to change contrast of print during exposure
COMPETENCY 6.0.12: Perform maintenance procedures

COMPETENCY BUILDERS:

6.0.12.1 Dispose of used chemistry according to EPA standards
6.0.12.2 Clean and maintain sinks
6.0.12.3 Clean and maintain enlargers
6.0.12.4 Clean floors
6.0.12.5 Check equipment

COMPETENCY 6.0.13: Spot photograph

COMPETENCY BUILDERS:

5.0.13.1 Match color of spotting agent to paper's emulsion color
5.0.13.2 Use proper spotting brush techniques
5.0.13.3 Mix and apply spotting agent to match tonal density

COMPETENCY 6.0.14: Mount photograph

COMPETENCY BUILDERS:

6.0.14.1 Identify safety hazards
6.0.14.2 Cut mat board
6.0.14.3 Apply drymount tissue to photograph using tacking iron
6.0.14.4 Trim photograph
6.0.14.5 Measure, position, and tack photograph to mat board
6.0.14.6 Operate drymount press

COMPETENCY 6.0.15: Cut window mat

COMPETENCY BUILDERS:

6.0.15.1 Identify safety hazards
6.0.15.2 Cut mat board
6.0.15.3 Apply measurements of photograph to board
6.0.15.4 Cut window
6.0.15.5 Mount photograph to board

COMPETENCY 6.0.16: Frame photograph

COMPETENCY BUILDERS:

6.0.16.1 Identify safety hazards
6.0.16.2 Assemble frame
6.0.16.3 Clean glass and photograph
6.0.16.4 Insert glass and photograph into frame
6.0.16.5 Close frame
UNIT 7: Medium Format Cameras

COMPETENCY 7.0.1: Disassemble and reassemble camera

COMPETENCY BUILDERS:

7.0.1.1 Remove, clean, and replace removable camera parts
7.0.1.2 Change camera lenses

COMPETENCY 7.0.2: Load and unload film

COMPETENCY BUILDERS:

7.0.2.1 Open camera and load film spool
7.0.2.2 Determine exposure with appropriate meter
7.0.2.3 Expose film
7.0.2.4 Open camera and remove film
7.0.2.5 Load film onto appropriate steel developing reel

UNIT 8: View Cameras

COMPETENCY 8.0.1: Disassemble and clean view camera

COMPETENCY BUILDERS:

8.0.1.1 Disassemble, clean, and reassemble parts of view camera
8.0.1.2 Change lenses on view camera
8.0.1.3 Operate view camera
8.0.1.4 Operate view camera lenses

COMPETENCY 8.0.2: Use polaroid film holder

COMPETENCY BUILDERS:

8.0.2.1 Determine which Polaroid film holder to use
8.0.2.2 Determine which Polaroid film to use
8.0.2.3 Clean and load film holder

* Advancing
** Futuring
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COMPETENCY 8.0.3: Load, expose, and unload sheet film holder

COMPETENCY BUILDERS:

8.0.3.1 Position sheet film holder and film on counter top
8.0.3.2 Load film into film holder in total darkness
8.0.3.3 Reverse card slides before exposure
8.0.3.4 Load view camera and expose film according to appropriate light meter
8.0.3.5 Unload film from film holder in total darkness
8.0.3.6 Use a changing bag to load and/or unload film

COMPETENCY 8.0.4: Gather processing hardware

COMPETENCY BUILDERS:

8.0.4.1 Set up cut-film deep tanks
8.0.4.2 Set up deep tank film washer

COMPETENCY 8.0.5: Load processing holder

COMPETENCY BUILDERS:

8.0.5.1 Ensure total darkness
8.0.5.2 Load film onto processing holder

COMPETENCY 8.0.6: Process sheet film

COMPETENCY BUILDERS:

8.0.6.1 Use consistent agitation methods
8.0.6.2 Operate temperature control
8.0.6.3 Replenish developer

COMPETENCY 8.0.7: Clean and dry sheet film

COMPETENCY BUILDERS:

8.0.7.1 Use wetting solution on film
8.0.7.2 Clean and dry film

* Advancing
** Futuring
COMPETENCY 8.0.8: Use positioning to correct distortion

COMPETENCY BUILDERS:

8.0.8.1 Use rise and fall movement for positioning
8.0.8.2 Use shift movement for positioning
8.0.8.3 Use swing movement to correct distortion
8.0.8.4 Use tilt movement to correct distortion
8.0.8.5 Identify depth-of-field problems and solutions

COMPETENCY 8.0.9: Use Scheimpflug principle

COMPETENCY BUILDERS:

8.0.9.1 Check the Scheimpflug principle on a horizontal plane and a vertical plane
8.0.9.2 Make a tilt of the lens to create a horizontal plane of focus
8.0.9.3 Make a swing of the lens to create a vertical plane of focus

COMPETENCY 8.0.10: Use 8" x 10" view camera*

COMPETENCY BUILDERS:

8.0.10.1 Assemble and disassemble 8" x 10" view camera*
8.0.10.2 Make movements on 8" x 10" view camera*
8.0.10.3 Identify depth of field problems and solutions*

UNIT 9: Lighting and Backdrops

COMPETENCY 9.0.1: Assemble and disassemble tungsten unit

COMPETENCY BUILDERS:

9.0.1.1 Identify potential safety hazards
9.0.1.2 Assemble tungsten unit
9.0.1.3 Disassemble tungsten unit

COMPETENCY 9.0.2: Operate tungsten unit

COMPETENCY BUILDERS:

9.0.2.1 Attach power cord and sync cord
9.0.2.2 Attach and remove reflectors and umbrellas and other accessories
9.0.2.3 Utilize light meter to obtain exposure

* Advancing
** Futuring
COMPETENCY 9.0.3: Assemble and disassemble strobe unit

COMPETENCY BUILDERS:

9.0.3.1 Identify potential safety hazards
9.0.3.2 Assemble strobe unit
9.0.3.3 Disassemble strobe unit

COMPETENCY 9.0.4: Operate strobe unit

COMPETENCY BUILDERS:

9.0.4.1 Attach power cord and sync cord
9.0.4.2 Control intensity by power ratio setting
9.0.4.3 Control modeling light
9.0.4.4 Attach and remove reflectors, umbrellas, and other accessories
9.0.4.5 Attach and remove slave units
9.0.4.6 Utilize strobe meter to obtain exposure

COMPETENCY 9.0.5: Utilize backdrop systems

COMPETENCY BUILDERS:

9.0.5.1 Operate chain pulley to raise and lower backdrop paper
9.0.5.2 Operate clamps to utilize formula backdrop
9.0.5.3 Operate portable backdrop system
9.0.5.4 Store backdrops properly

COMPETENCY 9.0.6: Utilize reflecting devices

COMPETENCY BUILDERS:

9.0.6.1 Set up reflecting devices
9.0.6.2 Adjust reflecting devices for type of light provided, intensity of light, and beam angle

COMPETENCY 9.0.7: Utilize different light positions

COMPETENCY BUILDERS:

9.0.7.1 Position lights relative to the subject plane and lens axis
9.0.7.2 Determine positions of main light, fill light, accent light, and background light
9.0.7.3 Utilize main light and two other positions to light subject for photograph

* Advancing
** Futuring
COMPETENCY 9.0.8: Make portrait

COMPETENCY BUILDERS:

9.0.8.1 Adjust main light for broad, short, butterfly, and trap door positions
9.0.8.2 Choose broad, short, butterfly, or trapdoor lighting as determined by subject's facial shape

UNIT 10: Portfolio

COMPETENCY 10.0.1: Shoot portraits using varied films, lighting, and formats

COMPETENCY BUILDERS:

10.0.1.1 Take head shots
10.0.1.2 Take head-and-shoulder shots
10.0.1.3 Take full-length shots
10.0.1.4 Take group shots
10.0.1.5 Take public relations shots
10.0.1.6 Take shots of children
10.0.1.7 Take sports action shots
10.0.1.8 Take product endorsement shots
10.0.1.9 Take environment shots using fill flash

COMPETENCY 10.0.2: Shoot architecture using view camera and varied films and lighting

COMPETENCY BUILDERS:

10.0.2.1 Take exterior shots
10.0.2.2 Take interior shots

COMPETENCY 10.0.3: Shoot product using view camera giving equal emphasis to hot lights and strobe lights

COMPETENCY BUILDERS:

10.0.3.1 Take shots of hard goods
10.0.3.2 Take shots of soft goods
10.0.3.3 Take shots of reflective products
10.0.3.4 Take shots of nonreflective products
10.0.3.5 Take shots of nonpackaged food
10.0.3.6 Take shots of toiletries
10.0.3.7 Take shots of packaged goods to a tight layout
10.0.3.8 Take publication cover shot to a tight layout

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COMPETENCY 10.0.4: Make color copy slide

COMPETENCY BUILDERS:

10.0.4.1 Gather materials and equipment
10.0.4.2 Set up artwork for flat copy
10.0.4.3 Adjust lighting
10.0.4.4 Choose appropriate film
10.0.4.5 Set up camera
10.0.4.6 Take photograph
10.0.4.7 Send film to be processed

UNIT 11: Digital Processing

COMPETENCY 11.0.1: Operate digital processing devices

COMPETENCY BUILDERS:

11.0.1.1 Input original digitally
11.0.1.2 Manipulate digital image with computer

COMPETENCY 11.0.2 Output digital image

COMPETENCY BUILDERS:

11.0.2.1 Output image to printer
11.0.2.2 Output image to disk

UNIT 12: Color Transparency Films for Audiovisual (AV) Use*

COMPETENCY 12.0.1: Select appropriate color transparency film*

COMPETENCY BUILDERS:

12.0.1.1 Ascertain lighting options and variables*
12.0.1.2 Determine best type of film for subject matter*

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COMPETENCY 12.0.2: Make slides*

COMPETENCY BUILDERS:

12.0.2.1 Select and use appropriate filter*
12.0.2.2 Assess color perception factors*
12.0.2.3 Assess sources and degree of light temperature*
12.0.2.4 Determine correct exposure time*
12.0.2.5 Shoot slides*
12.0.2.6 Send film to be processed*

COMPETENCY 12.0.3: Mount film*

COMPETENCY BUILDERS:

12.0.3.1 Cut transparency film into single exposures*
12.0.3.2 Mount slide using plastic pressure-seal mounts*
12.0.3.3 Mount slide using plastic slip-in mounts*
12.0.3.4 Mount slide using cardboard heat-seal mounts*

COMPETENCY 12.0.4: Use audiovisual (AV) tape-sync recorder*

COMPETENCY BUILDERS:

12.0.4.1 Patch AV recorder to projector*
12.0.4.2 Operate projector with AV recorder*
12.0.4.3 Operate cassette portion of AV recorder*
12.0.4.4 Add sync signals to music and/or narrative cassette*
12.0.4.5 Operate AV recorder with prerecorded cassette*

COMPETENCY 12.0.5: Use dissolve unit with two projectors*

COMPETENCY BUILDERS:

12.0.5.1 Connect dissolve unit to projectors and AV recorder*
12.0.5.2 Operate projectors with dissolve unit*
12.0.5.3 Program dissolve unit for sequential effects*
12.0.5.4 Program dissolve unit for nonsequential effects*
12.0.5.5 Add programming signals to music and/or narrative cassette*
12.0.5.6 Operate dissolve unit with prerecorded tape*

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COMPETENCY 12.0.6: Make audiovisual (AV) presentation*

COMPETENCY BUILDERS:

12.0.6.1 Use storyboard to plan steps of presentation*
12.0.6.2 Shoot slides according to storyboard*
12.0.6.3 Edit and sequence slides for presentation*
12.0.6.4 Record music and/or narration*
12.0.6.5 Program dissolve unit and AV sync tape recorder*
12.0.6.6 Make presentation*

UNIT 13: Printing Color Negatives*

COMPETENCY 13.0.1: Set up and check equipment*

COMPETENCY BUILDERS:

13.0.1.1 Check control settings*
13.0.1.2 Check processing racks*
13.0.1.3 Check and clean lenses*
13.0.1.4 Identify potential safety hazards*

COMPETENCY 13.0.2: Operate print processor*

COMPETENCY BUILDERS:

13.0.2.1 Bring PRC-40 print processor up to operating temperature*
13.0.2.2 Insert exposed color paper and remove processed paper*
13.0.2.3 Perform replenishment of chemicals*
13.0.2.4 Mix and replace chemicals*
13.0.2.5 Remove racks for extended storage*
13.0.2.6 Clean racks and trays and recharge trays*

COMPETENCY 13.0.3: Make ring-around color print set*

COMPETENCY BUILDERS:

13.0.3.1 Plan steps of basic color printing procedure*
13.0.3.2 Print target color print*
13.0.3.3 Print series of prints where each is 10cc greater in directions of yellow, cyan, magenta, blue, red, and green*
13.0.3.4 Choose color print closest to neutral*
13.0.3.5 Print for density first, then color balance*
13.0.3.6 Show how exposure time affects color balance*

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COMPETENCY 13.0.4: Make a skintone*

COMPETENCY BUILDERS:

13.0.4.1 Determine whether to use starting filter pack or standard filter pack*
13.0.4.2 Shoot standard negative comprising skintone, graycard, and color chart under appropriate lighting*
13.0.4.3 Manipulate standard negative until print color and density matches color chart and graycard*

COMPETENCY 13.0.5: Dodge and burn a color print*

COMPETENCY BUILDERS:

13.0.5.1 Make color enlargement*
13.0.5.2 Identify areas to be dodged and burned*
13.0.5.3 Dodge and burn areas with supplementary color filters during exposure of color enlargement*

COMPETENCY 13.0.6: Spot color print*

COMPETENCY BUILDERS:

13.0.6.1 Gather necessary materials for wet spotting*
13.0.6.2 Mix basic colors to achieve tone needed*
13.0.6.3 Apply mixture sparingly to areas on print*
13.0.6.4 Use dry spotting materials for larger areas of color correction*

COMPETENCY 13.0.7: Perform cleanup and basic maintenance procedures*

COMPETENCY BUILDERS:

13.0.7.1 Clean and maintain RCF-40 processor*
13.0.7.2 Clean and maintain sink*
13.0.7.3 Clean floors*
13.0.7.4 Check equipment*

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UNIT 14: Professionalism

COMPETENCY 14.0.1: Assemble and maintain portfolio

COMPETENCY BUILDERS:
14.0.1.1 Select 10-15 choice pieces that represent various skills
14.0.1.2 Design and arrange uniformly sized, portfolio in a neat and orderly fashion
14.0.1.3 Select appropriate portfolio size
14.0.1.4 Mount work in portfolio pages (i.e. prints should be mounted with window mats; slides displayed in multiple-side presentation mats; large transparencies in black window mats with plastic sleeves over entire mat)
14.0.1.5 Assemble work in commercial portfolio case or book
14.0.1.6 Make an annual portfolio presentation to a panel of industry representatives for critique

COMPETENCY 14.0.2: Prepare qualifications brief

COMPETENCY BUILDERS:
14.0.2.1 Write copy of skills needed, demonstrated, and/or gained on various jobs and/or work assignments
14.0.2.2 Assemble in brief format
14.0.2.3 Reproduce professionally prepared copies

COMPETENCY 14.0.3: Research employment opportunities

COMPETENCY BUILDERS:
14.0.3.1 Use yellow pages and consult advertising representatives
14.0.3.2 Examine various newspapers for employment listings
14.0.3.3 Examine regional advertising through commercial art, trade journals, and professional associations
14.0.3.4 Research and analyze potential employers in library reference materials
COMPETENCY 14.0.4: Prepare cover letter

COMPETENCY BUILDERS:

14.0.4.1 Research job and/or company for background information
14.0.4.2 Gather materials
14.0.4.3 Write cover letter
14.0.4.4 Proof cover letter
14.0.4.5 Type cover letter

UNIT 15: Employability Skills

SUBUNIT 15.1: Career Development

COMPETENCY 15.1.1: Investigate career options

COMPETENCY BUILDERS:

15.1.1.1 Determine interests and aptitudes
15.1.1.2 Identify career options
15.1.1.3 Research occupations matching interests and aptitudes
15.1.1.4 Select career(s) that best match(es) interests and aptitudes
15.1.1.5 Identify advantages and disadvantages of career options, including nontraditional careers
15.1.1.6 Assess differences in wages, annual incomes, and job opportunities based on geographic location
15.1.1.7 Develop a career plan

COMPETENCY 15.1.2: Analyze potential barriers to employment

COMPETENCY BUILDERS:

15.1.2.1 Identify common barriers to employment
15.1.2.2 Develop strategies to overcome employment barriers
UNIT 15: Employability Skills

SUBUNIT 15.2: Decision Making and Problem Solving

COMPETENCY 15.2.1: Apply decision-making techniques in the workplace

COMPETENCY BUILDERS:
15.2.1.1 Identify the decision to be made
15.2.1.2 Compare alternatives
15.2.1.3 Determine consequences of each alternative
15.2.1.4 Make decisions based on values and goals
15.2.1.5 Evaluate the decision made

COMPETENCY 15.2.2: Apply problem-solving techniques in the workplace

COMPETENCY BUILDERS:
15.2.2.1 Diagnose the problem and its causes
15.2.2.2 Identify alternatives and their consequences in relation to the problem
15.2.2.3 Examine multicultural and nonsexist dimensions of problem solving
15.2.2.4 Utilize resources to explore possible solutions to the problem
15.2.2.5 Compare and contrast the advantages and disadvantages of each solution
15.2.2.6 Determine appropriate action
15.2.2.7 Evaluate results

UNIT 15: Employability Skills

SUBUNIT 15.3: Work Ethic

COMPETENCY 15.3.1: Evaluate the relationship of self-esteem to work ethic

COMPETENCY BUILDERS:
15.3.1.1 Identify special characteristics and abilities in self and others
15.3.1.2 Identify internal and external factors that affect self-esteem

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COMPETENCY 15.3.2: Analyze the relationship of personal values and goals to work ethic both in and out of the workplace

COMPETENCY BUILDERS:

15.3.2.1 Distinguish between values and goals
15.3.2.2 Determine the importance of values and goals
15.3.2.3 Evaluate how values affect goals
15.3.2.4 Identify short-term and long-term goals
15.3.2.5 Prioritize personal goals
15.3.2.6 Describe how personal values are reflected in work ethic
15.3.2.7 Describe how interactions in the workplace affect personal work ethic
15.3.2.8 Examine how life changes affect personal work ethic

COMPETENCY 15.3.3: Demonstrate work ethic

COMPETENCY BUILDERS:

15.3.3.1 Examine factors that influence work ethic
15.3.3.2 Exhibit characteristics that reflect an appropriate work ethic

UNIT 15: Employability Skills

SUBUNIT 15.4: Job-Seeking Skills

COMPETENCY 15.4.1: Prepare for employment

COMPETENCY BUILDERS:

15.4.1.1 Identify traditional and nontraditional employment sources
15.4.1.2 Utilize employment sources
15.4.1.3 Research job opportunities, including nontraditional careers
15.4.1.4 Interpret equal employment opportunity laws
15.4.1.5 Explain the critical importance of personal appearance, hygiene, and demeanor throughout the employment process
15.4.1.6 Prepare for generic employment tests and those specific to an occupation/organization

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COMPETENCY 15.4.2: Design a résumé

COMPETENCY BUILDERS:

15.4.2.1 Identify personal strengths and weaknesses
15.4.2.2 List skills and/or abilities, career objective(s), accomplishments/achievements, educational background, and work experience
15.4.2.3 Demonstrate legible written communication skills using correct grammar, spelling, and concise wording
15.4.2.4 Complete résumé using various formats
15.4.2.5 Secure references

COMPETENCY 15.4.3: Complete and process job application forms

COMPETENCY BUILDERS:

15.4.3.1 Explain the importance of an application form
15.4.3.2 Identify ways to obtain job application forms
15.4.3.3 Describe methods for handling illegal questions on job application forms
15.4.3.4 Demonstrate legible written communications skills using correct grammar, spelling, and concise wording
15.4.3.5 Return application to proper person, request interview, and follow up

COMPETENCY 15.4.4: Demonstrate interviewing skills

COMPETENCY BUILDERS:

15.4.4.1 Investigate interview environment and procedures
15.4.4.2 Explain the critical importance of personal appearance, hygiene, and demeanor
15.4.4.3 Demonstrate question and answer techniques
15.4.4.4 Demonstrate methods for handling difficult and/or illegal interview questions

COMPETENCY 15.4.5: Secure employment

COMPETENCY BUILDERS:

15.4.5.1 Identify present and future employment opportunities within an occupation/organization
15.4.5.2 Research the organization/company
15.4.5.3 Use follow-up techniques to enhance employment potential
15.4.5.4 Compare and evaluate job offers

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UNIT 15: Employability Skills

SUBUNIT 15.5: Job Retention Skills

COMPETENCY 15.5.1: Analyze the organizational structure of the workplace

COMPETENCY BUILDERS:

15.5.1.1 Identify and evaluate employer expectations regarding job performance, work habits, attitudes, personal appearance, and hygiene
15.5.1.2 Be aware of and obey all company policies and procedures
15.5.1.3 Examine the role/relationship between employee and employer
15.5.1.4 Recognize opportunities for advancement and reasons for termination

COMPETENCY 15.5.2: Maintain positive relations with others

COMPETENCY BUILDERS:

15.5.2.1 Exhibit appropriate work habits and attitude
15.5.2.2 Identify behaviors to establish successful working relationships
15.5.2.3 Cooperate and compromise through teamwork and group participation
15.5.2.4 Identify alternatives for dealing with harassment, bias, and discrimination based on race, color, national origin, sex, religion, handicap, or age

UNIT 15: Employability Skills

SUBUNIT 15.6: Job Advancement

COMPETENCY 15.6.1: Analyze opportunities for personal and career growth

COMPETENCY BUILDERS:

15.6.1.1 Determine opportunities within an occupation/organization
15.6.1.2 Compare and contrast other opportunities
15.6.1.3 List benefits of job advancement
15.6.1.4 Evaluate factors involved when assuming a new position within or outside an occupation/organization

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COMPETENCY 15.6.2: Exhibit characteristics needed for advancement

COMPETENCY BUILDERS:

15.6.2.1 Display a positive attitude
15.6.2.2 Demonstrate knowledge of a position
15.6.2.3 Perform quality work
15.6.2.4 Adapt to changing situations and technology
15.6.2.5 Demonstrate capability for different positions
15.6.2.6 Participate in continuing education/training programs
15.6.2.7 Respect, accept, and work with ALL individuals in the workplace

UNIT 15: Employability Skills

SUBUNIT 15.7: Technology in the Workplace

COMPETENCY 15.7.1: Assess the impact of technology in the workplace

COMPETENCY BUILDERS:

15.7.1.1 Cite how past business/industry practices have influenced present business/industry processes
15.7.1.2 Investigate the use of technology in the workplace
15.7.1.3 Analyze how present skills can be applied to learning new technologies

COMPETENCY 15.7.2: Use a variety of technological applications

COMPETENCY BUILDERS:

15.7.2.1 Explore basic mathematical, scientific, computer, and technological principles
15.7.2.2 Use technology to accomplish assigned tasks
15.7.2.3 Create solutions to problems using technical means
UNIT 15: Employability Skills

SUBUNIT 15.8: Lifelong Learning

COMPETENCY 15.8.1: Apply lifelong learning to individual situations

COMPETENCY BUILDERS:
15.8.1.1 Define lifelong learning
15.8.1.2 Identify factors that cause the need for lifelong learning

COMPETENCY 15.8.2: Adapt to change

COMPETENCY BUILDERS:
15.8.2.1 Analyze the effects of change
15.8.2.2 Identify reasons why goals change
15.8.2.3 Describe the importance of flexibility when reevaluating goals
15.8.2.4 Evaluate the need for continuing education/training

UNIT 15: Employability Skills

SUBUNIT 15.9: Economic Education

COMPETENCY 15.9.1: Analyze global enterprise systems

COMPETENCY BUILDERS:
15.9.1.1 Identify characteristics of various enterprise systems
15.9.1.2 Examine the relationship between competition, risk, and profit
15.9.1.3 Illustrate how supply and demand influence price

COMPETENCY 15.9.2: Evaluate personal money management

COMPETENCY BUILDERS:
15.9.2.1 Describe the need for personal management records
15.9.2.2 Identify methods of taxation
15.9.2.3 Analyze how credit affects financial security
15.9.2.4 Compare types and methods of investments
15.9.2.5 Prepare a personal budget
15.9.2.6 Be an informed and responsible consumer
15.9.2.7 Analyze the effects of advertising on the consumer

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UNIT 15: Employability Skills

SUBUNIT 15.10: Balancing Work and Family

COMPETENCY 15.10.1: Analyze the effects of family on work

COMPETENCY BUILDERS:

15.10.1.1 Recognize how family values, goals, and priorities are reflected in the workplace
15.10.1.2 Identify present and future family structures and responsibilities
15.10.1.3 Describe personal and family roles
15.10.1.4 Analyze concerns of working parent(s)
15.10.1.5 Examine how family responsibilities can conflict with work
15.10.1.6 Resolve family-related conflicts
15.10.1.7 Explain how to use support systems/community resources to help resolve family-related conflicts

COMPETENCY 15.10.2: Analyze the effects of work on family

COMPETENCY BUILDERS:

15.10.2.1 Identify responsibilities associated with paid and nonpaid work
15.10.2.2 Compare the advantages and disadvantages of multiple incomes
15.10.2.3 Examine how work can conflict with family responsibilities
15.10.2.4 Describe how work-related stress can affect families
15.10.2.5 Identify family support systems and resources

UNIT 15: Employability Skills

SUBUNIT 15.11: Citizenship in the Workplace

COMPETENCY 15.11.1: Exercise the rights and responsibilities of citizenship in the workplace

COMPETENCY BUILDERS:

15.11.1.1 Identify the basic rights and responsibilities of citizenship
15.11.1.2 Examine the history and contributions of all racial, ethnic, and cultural groups

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COMPETENCY 15.11.2: Cooperate with others in the workplace

COMPETENCY BUILDERS:
15.11.2.1 Identify situations in which compromise is necessary
15.11.2.2 Examine how individuals from various backgrounds contribute to work-related situations
15.11.2.3 Demonstrate initiative to facilitate cooperation
15.11.2.4 Give and receive constructive criticism to enhance cooperation

UNIT 15: Employability Skills

SUBUNIT 15.12: Leadership

COMPETENCY 15.12.1: Evaluate leadership styles appropriate for the workplace

COMPETENCY BUILDERS:
15.12.1.1 Identify characteristics of effective leaders
15.12.1.2 Compare leadership styles
15.12.1.3 Demonstrate effective delegation skills
15.12.1.4 Identify opportunities to lead in the workplace

COMPETENCY 15.12.2: Demonstrate effective teamwork skills

COMPETENCY BUILDERS:
15.12.2.1 Identify the responsibilities of a valuable group member
15.12.2.2 Exhibit open-mindedness
15.12.2.3 Identify methods of involving each member of a team
15.12.2.4 Contribute to the efficiency and success of a group
15.12.2.5 Determine ways to motivate others

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COMPETENCY 15.12.3: Utilize effective communication skills

COMPETENCY BUILDERS:
15.12.3.1 Demonstrate the importance of listening
15.12.3.2 Demonstrate assertive communication
15.12.3.3 Recognize the importance of verbal and nonverbal cues and messages
15.12.3.4 Analyze written material
15.12.3.5 Prepare written material
15.12.3.6 Give and receive feedback
15.12.3.7 Articulate thoughts
15.12.3.8 Use appropriate language

UNIT 15: Employability Skills

SUBUNIT 15.13: Entrepreneurship

COMPETENCY 15.13.1: Evaluate the role of small business in the economy

COMPETENCY BUILDERS:
15.13.1.1 Identify the benefits of small business to a community
15.13.1.2 Analyze opportunities for small business in a community

COMPETENCY 15.13.2: Examine considerations of starting a business

COMPETENCY BUILDERS:
15.13.2.1 Research a business idea
15.13.2.2 Compare various ways to become a small business owner
15.13.2.3 Investigate factors to consider in financing a new business
15.13.2.4 Evaluate entrepreneurship as a career option