

Press Operations, Binding and Finishing

PrintED Crosswalk

PrintED is a national accreditation and certification program for graphic communications courses of study at the secondary and post-secondary levels. Applicant and accredited programs are provided with a list of competencies, developed by educators and industry, for each area of accreditation. All of the competencies related to PrintED's Press Operations and Binding and Finishing competency lists are taught in this publication, as well as a few from the PrintED Introduction to Graphic Communications competency list. The first column identifies the PrintED competency by number. The second column identifies where the PrintED competency is taught by noting the exact unit number and objective, assignment sheet, or job sheet. Please note that a few of the competencies are taught in the *Orientation to Graphic Communications* book and are so noted on this crosswalk.

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PrintED Introduction to Graphic Communications	MAVCC Tasks
A. Introduction	
12.	Unit 1, Objective 3—Basic systems of a typical sheet fed offset press
E. Press Operations	
1.	Unit 1, Objective 3—Basic systems of a typical sheet fed offset press
2.	Unit 4, Objective 2—Essential safety precautions; Objective 4—Offset press operator control functions
3.	Unit 4, Job Sheet 3—Operate an offset press from setup of systems through printed sheet delivery
4.	
5.	Unit 5, Objective 6—Preventive maintenance procedures for daily cleanup
F. Binding and Finishing	
3.	Unit 7, Objective 6—Formula for cutting paper stock; A.S. 1—Use the formula for cutting paper stock
4.	Unit 7, A.S. 4—Draw a cutting diagram
5.	Unit 7, Job Sheet 3—Cut carbonless paper
27.	Unit 8, J.S. 4—Jog paper, check for squareness, and demonstrate brick stacking
G. Measurement	
3.	Unit 2, Job Sheet 1—Mix dampening solution and test for pH and conductivity
I. Basic Math	
1.	Unit 7, A.S. 1—Use the formula for cutting paper stock; A.S. 2—Use the formula to determine how many sheets will be required; A.S. 3—Calculate a combination cut using stock cutting formula
20.	Unit 6, A.S. 1—Estimate costs of printing jobs; A.S. 2—Estimate costs of printing jobs using Franklin Offset Catalog or Software

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PrintED Press Operations	MAVCC Tasks
1.	<i>Orientation to Graphic Communications</i> , Unit 5, A.S. 4—Read and interpret information on a job ticket
2. 3.	Unit 3, Objective 11—Do’s and don’ts for properly handling plates and chemicals
4.	Unit 3, Objective 4—Plate exposing devices
5.	Unit 3, Objective 3—Types of offset plates
6.	Unit 3, Objective 5—Types of presensitized plates
7.	Unit 3, Objective 6—Steps to expose and process plates; Objective 9—Gumming of plates
8.	Unit 3, Objective 7—Automatic plate processors
9.	Unit 3, J.S. 5—Make additions, deletions, and repairs to an offset plate
10.	Unit 4, Objective 2—Essential safety precautions
11.	Unit 4, Objective 2—Essential safety precautions; Unit 4—All job sheets
12.	Unit 1, Objective 3—Basic systems of a typical sheet fed offset press; Objective 4—Basic systems of a typical sheet fed offset press and their functions; Objective 7—Components of the feeder system; Objective 8—Components of the feeder system and their functions; Objective 9—Types of feeder systems and their operations; Objective 10—Components of the register system; Objective 11—Components of the register system and their functions; Objective 12—Two types of register systems; Objective 13—Components of the cylinder system; Objective 14—Components of the cylinder system and their functions
13.	Unit 4, Objective 4—Offset press operator control functions; Objective 5—Typical operator control features and the press systems in which they are located; Objective 6—Steps in the sequence of paper movement through a typical offset press
14.	<i>Orientation to Graphic Communications</i> , Unit 7, Objective 2—Basic paper grades and their uses; Objective 3—Basic paper sizes and their dimensions
15.	<i>Orientation to Graphic Communications</i> , Unit 7, Objective 5—Tests and procedures for determining grain direction; A.S. 1—Identify basic grades of paper; A.S. 2—Choose the correct paper for various jobs

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PrintED Press Operations	MAVCC Tasks
16.	Unit 7, Objective 3—Purpose for jogging paper before cutting; J.S. 3—Cut carbonless paper
17.	<i>Orientation to Graphic Communications</i> , Unit 7, A.S. 1—Identify basic grades of paper; A.S. 2—Choose the correct paper for various jobs
18.	Unit 5, A.S. 2—Use a troubleshooting guide to find the best solution to a paper stock problem
19.	Unit 2, Objective 4—Types of ink
20.	Unit 2, Objective 2—Main ingredients of offset inks; A.S. 1—Conduct an ink cabinet inventory
21.	Unit 2, Objective 14—Importance of ink-water balance; Unit 5, Objective 16—Types of emulsification; Objective 17—Technique for avoiding emulsification; A.S. 1—Use a troubleshooting guide to find the best solution to an ink and dampening problem
22.	Unit 2, J.S. 2—Mix PMS colors; conduct an devalue an ink draw-down or smear; J.S. 3—Mix two colors of ink to produce a third color
23.	Unit 2, Objective 9—Dampening solution ingredients and their functions; A.S. 2—Conduct an inventory of offset press dampening chemistry
24.	Unit 2, Objective 10—Two methods of measuring pH; Objective 13—Importance of measuring conductivity of a dampening solution
25.	Unit 2, J.S. 1—Mix dampening solution and test for pH and conductivity
26.	Unit 4, J.S. 1—Set up the sheet control systems; J.S. 3—Operate an offset press from setup of systems through printed sheet delivery
27. 28.	Unit 4, J.S. 2—Set up the image control systems; J.S. 3—Operate an offset press from setup of systems through printed sheet delivery
29.	Unit 4, J.S. 3—Operate an offset press from setup of systems through printed sheet delivery
30.	Unit 4, J.S. 14—Print a job using photodirect, electrostatic, and/or computer-to-plate masters on carbonless paper
31.	Unit 4, J.S. 10—Print a work-and-turn; J.S. 11—Print a work-and-tumble
32.	Unit 4, J.S. 14—Print a job using photodirect, electrostatic, and/or computer-to-plate masters on carbonless paper
33.	Unit 4, J.S. 6—Print envelopes

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PrintED Press Operations	MAVCC Tasks
34.	Unit 4, J.S. 13—Print solids
35.	Unit 4, J.S. 11—Print a work-and-tumble
36.	Unit 4, J.S. 10—Print a work-and-turn
37.	Unit 4, J.S. 8—Print a two-color, two-sided job
38.	Unit 4, J.S. 9—Print a two-color hairline registration job using an additional color head
39.	Unit 4, J.S. 17—Print a two-color job using tight registration
40.	Unit 4, J.S. 8—Print a two-color, two-sided job
41.	Unit 4, J.S. 5—Perform a color wash on an offset press; Unit 5, J.S. 6—Deglaze ink rollers and blanket
42.	Unit 5, J.S. 1—Adjust dampener rollers to plate cylinder; J.S. 2—Adjust ink form rollers to plate; J.S. 3—Adjust plate cylinder to blanket cylinder; J.S. 4—Adjust blanket cylinder to impression cylinder
43.	Unit 5, J.S. 7—Change blanket
44.	Unit 4, J.S. 5—Perform a color wash on an offset press
45.	Unit 4, J.S. 6—Print envelopes; J.S. 8— Print a two-color, two-sided job; J.S. 9—Print a two-color hairline registration job using an additional color head; J.S. 10—Print a work-and-turn; J.S. 11—Print a work-and-tumble; J.S. 12—Print halftones and screen tints; J.S. 13—Print solids; J.S. 14—Print a job using photodirect, electrostatic, and/or computer-to-plate masters on carbonless paper; J.S. 15—Print a four-color process job; J.S. 17— Print a two-color job using tight registration; J.S. 18—Print a two-color job using tight registration, 4-up
46.	Unit 4, J.S. 14—Print a job using photodirect, electrostatic, and/or computer-to-plate masters on carbonless paper
47.	Unit 4, J.S. 13—Print solids
48.	<i>Orientation to Graphic Communications</i> , Unit 1, A.S. 4—Visit a printing shop

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PrintED Binding & Finishing	MAVCC Tasks
1.	Unit 8, J.S. 5—Prepare a folding dummy for a 16-page imposition
2.	Unit 8, J.S. 6—Set up and operate a paper folder consistent with job specifications; <i>Orientation to Graphic Communications</i> , Unit 5, A.S. 4—Read and interpret information on a job ticket
3.	Unit 7, Objective 2—Safety rules for operating a paper cutter; <i>Orientation to Graphic Communications</i> , Unit 8, Objective 5—Operational and safety parts of a paper cutter
4.	Unit 8—All job sheets
5.	<i>Orientation to Graphic Communications</i> , Unit 8, Objective 2—Binding techniques; Objective 3—Major paper folding styles; Objective 5—Operational and safety parts of a paper cutter
6.	Unit 8, J.S. 1—Use folding equipment to produce a gate fold
7.	<i>Orientation to Graphic Communications</i> , Unit 8, J.S. 5—Fold paper using a folding machine
8.	Unit 8, J.S. 2—Use folding equipment to produce a French fold (double fold)
9.	Unit 8, J.S. 3—Use folding equipment to produce slitted, perforated, and scored sheets
10.	Unit 8, Objective 9—Inline finishing operations
11.	Unit 7, J.S. 1—Set up a programmable paper cutter and cut paper
12.	Unit 7, J.S. 2—Change a blade on an automatic paper cutter
13.	<i>Orientation to Graphic Communications</i> , Unit 7, A.S. 1—Identify basic grades of paper; A.S. 2—Choose the correct paper for various jobs
14.	Unit 9, Objective 5—How the characteristics of paper affect binding and finishing operations
15.	Unit 8, Objective 10—Ancillary finishing operations
16.	Unit 8, Objective 6—Binding methods
17.	Unit 8, Objective 11—Packing and shrink-wrapping equipment and materials
18.	Unit 8, Objective 13—Mail class guidelines; Objective 14—Mail class rates
19. 20.	Unit 8, Objective 3—Embossing and foil stamping descriptions
21.	Unit 8, Objective 4—Common problems encountered in foil stamping and embossing
22. 23.	Unit 8, Objective 6—Binding methods

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PrintED Binding & Finishing	MAVCC Tasks
24.	<i>Orientation to Graphic Communications</i> , Unit 7, Objective 9—Rules for handling paper
25.	Unit 8, J.S. 4—Jog paper, check for squareness, and demonstrate brick stacking
26. 27.	Unit 8, Objective 5—Advantages and disadvantages of laminating and coating techniques
28.	Unit 6, A.S. 2—Estimate costs of printing jobs using Franklin Offset Catalog or Software
29.	Unit 8, Objective 12—Bindery waste disposal
30.	Unit 8, Objective 6—Binding methods; J.S. 8—Bind a book with plastic coil binding; J.S. 9—Bind a book with thermal tape binding; J.S. 10—Bind a book with plastic comb binding
31.	Unit 8, Objective 7—Tipping
32.	Unit 8, J.S. 4—Jog paper, check for squareness, and demonstrate brick stacking
33.	Unit 9, Objective 1—Importance of troubleshooting in binding and finishing
34.	Unit 8, J.S. 5—Prepare a folding dummy for a 16-page imposition
35.	Unit 8, J.S. 6—Set up and operate a paper folder consistent with job specifications
36.	Unit 9, Objective 3—Quality control in bindery operations
37.	Unit 9, Objective 6—Troubleshooting and maintenance criteria for bindery equipment; A.S. 2—Set up a preventive maintenance schedule for a folding machine; J.S. 2—Perform preventive maintenance on a folding machine
38.	Unit 7, J.S. 2—Change a blade on an automatic paper cutter
39.	Unit 8, Objective 2—Paper folding styles
40.	Unit 8, J.S. 7—Use folding equipment to produce high-folio lip signatures
41.	Unit 8, Objective 10—Ancillary finishing operations
42.	Unit 8, Objective 8—Folding techniques
43.	Unit 8, J.S. 4—Jog paper, check for squareness, and demonstrate brick stacking
44.	<i>Orientation to Graphic Communications</i> , Unit 8, J.S. 4—Drill paper stock for a 3-ring binder
45.	Unit 8, Objective 10—Ancillary finishing operations
46.	<i>Orientation to Graphic Communications</i> , Unit 1, A.S. 4—Visit a printing shop

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PrintED Advanced Press Operations	MAVCC Tasks
1.	<i>Orientation to Graphic Communications</i> , Unit 5, A.S. 4—Read and interpret information on a job ticket
2.	Unit 7, Objective 2—Safety rules for operating a paper cutter; <i>Orientation to Graphic Communications</i> , Unit 8, Objective 5—Operational and safety parts of a paper cutter
3.	Unit 4, Objective 5—Typical operator control features and the press systems in which they are located
4.	Unit 1, Objective 3—Basic systems of a typical sheet fed offset press
5.	Unit 4, Objective 4—Offset press operator control functions
6.	Unit 1, Objective 9—Types of feeder systems and their operations
7.	Unit 1, Objective 21—Two types of dampening systems; Objective 24—Types of delivery systems
8.	Unit 1, Objective 15—Types of offset blankets
9.	Unit 1, Objective 5—Basic systems of a typical web offset press
10.	Unit 1, Objective 6—Advantages and disadvantages of a web offset press
11.	Unit 1, Objective 11—Components of the register system and their functions; Objective 12—Two types of register systems
12.	Unit 3, Objective 12—Pin registration systems
13.	Unit 5, Objective 15—Categories of press troubles; Objective 16—Types of emulsification; <i>Orientation to Graphic Communications</i> , Unit 5, Objective 6—Quality control
14.	Unit 4—All job sheets
15.	Unit 4—All job sheets; Unit 8, J.S. 4—Jog paper, check for squareness, and demonstrate brick stacking
16.	Unit 2, J.S. 1—Mix dampening solution and test for pH and conductivity
17.	Unit 2, Objective 13—Importance of measuring conductivity of a dampening solution; J.S. 1—Mix dampening solution and test for pH and conductivity
18.	Unit 2, J.S. 2—Mix PMS colors; conduct and evaluate an ink draw-down or smear; J.S. 3—Mix two colors of ink to produce a third color
19.	Unit 4, J.S. 3—Operate an offset press from setup of systems through printed sheet delivery

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20.	Unit 4, J.S. 8—Print a two-color, two-sided job
21.	Unit 4, J.S. 15—Print a four-color process job
22.	
23.	Unit 4, J.S. 3—Operate an offset press from setup of systems through printed sheet delivery; J.S. 12—Print halftones and screen tints
24.	Unit 4, J.S. 3— Operate an offset press from setup of systems through printed sheet delivery
25.	Unit 4, J.S. 13—Print solids
26.	Unit 4, J.S. 10—Print a work-and-turn; J.S. 11—Print a work-and-tumble; J.S. 18—Print a two-color job using tight registration, 4-up
27.	<i>Orientation to Graphic Communications</i> , Unit 7, Objective 6—Printing process requirements
28.	Unit 8, Objective 5—Advantages and disadvantages of laminating and coating techniques
29.	Unit 2, Objective 15—Characteristics of waterless printing
30.	Unit 1, Objective 17—Perfecting press
31.	Unit 8, Objective 12—Bindery waste disposal
32.	<i>Orientation to Graphic Communications</i> , Unit 11, Objective 10—Working with color
33.	Unit 5, Objective 20—Process color ink analysis
34.	
35.	
36.	
37.	Unit 5, A.S. 6—Determine lubrication requirements for a specific press; A.S. 7—Set up a preventive maintenance schedule in chart form
38.	Unit 5, J.S. 2—Adjust ink form rollers to plate
39.	Unit 5, J.S. 7—Change blanket
40.	
41.	Unit 5, Objective 21—Printing industry standards
42.	<i>Digital File Preparation and Output</i> book
43.	Unit 4, Objective 7—Ink key presetting technology
44.	Unit 5, Objective 20—Process color ink analysis
45.	<i>Orientation to Graphic Communications</i> , Unit 6, Objective 2—Major printing processes; Objective 5—Advantages, disadvantages, and uses of the major printing processes