

## **CT.GCPT Graphic Communications & Printing Technology (CTC)**

### Essential Discipline Goals:

- Develop and apply the technical competency and related academic skills that allow for economic independence and career satisfaction.
- Acquire the essential learning and values that foster continued education throughout life.
- Demonstrate the ability to communicate, solve problems, work individually and in groups, and apply information effectively.
- Develop technological literacy and the ability to adapt to future change.

For every task associated with this curriculum, the following safety requirements must be strictly enforced: Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

## **CT.GCPT.20 Orientation, Composition and Paste Up**

### **CT.GCPT.20.100 Introduction**

- CT.GCPT.20.100.1 Define the role of graphics in the free enterprise system (1).
- CT.GCPT.20.100.2 Identify printing markets & types of printing businesses (1).
- CT.GCPT.20.100.3 List printing's ranking among other industries (1).
- CT.GCPT.20.100.4 Identify the major printing processes (1).
- CT.GCPT.20.100.5 List the advantages of each major process (1.)
- CT.GCPT.20.100.6 List the disadvantages of each major process (1).
- CT.GCPT.20.100.7 Identify the products produced by each major process (1).
- CT.GCPT.20.100.8 List in order the business flow of printing from initial need to final product (2).
- CT.GCPT.20.100.9 List in order the technical production flow from idea to finished product (1).
- CT.GCPT.20.100.10 Identify major occupations in the graphic arts and understand the basic training needed for each (1).
- CT.GCPT.20.100.11 List the major responsibilities for each occupation (1).
- CT.GCPT.20.100.12 Identify basic salary/wage expectation ranges for local area (1).
- CT.GCPT.20.100.13 Comprehend basic printing technology (1).
- CT.GCPT.20.100.14 Read and comprehend production information from job jacket/ticket (1).

### **CT.GCPT.20.200 Digital Image Preparation**

- CT.GCPT.20.200.1 Identify fundamentals of type and its uses (1).
- CT.GCPT.20.200.2 Define the difference between raster and vector (1).
- CT.GCPT.20.200.3 Define removable media (1).

### **CT.GCPT.20.300 Reproduction Photography**

- CT.GCPT.20.300.1 Identify basic darkroom equipment and hand tools (1).
- CT.GCPT.20.300.2 Identify basic materials and supplies for line photography (1).
- CT.GCPT.20.300.3 Produce a good quality line negative using sensitivity guide/scale (1).

### **CT.GCPT.20.400 Image Assembly/Platemaking**

- CT.GCPT.20.400.1 Identify platemaking equipment and tools for offset plates (1).

- CT.GCPT.20.400.2 Produce a correctly exposed & processed plate for offset printing (1).
- CT.GCPT.20.400.3 Identify various proofing systems (1).

### **CT.GCPT.20.500 Finishing and Binding**

- CT.GCPT.20.500.1 Identify operational & safety parts of a paper cutter (1).
- CT.GCPT.20.500.2 Identify grain direction of paper (1).
- CT.GCPT.20.500.3 Calculate basic paper cuts from stock sheet (1).
- CT.GCPT.20.500.4 Draw a master cutting diagram for making cuts (1).
- CT.GCPT.20.500.5 Make accurate paper cuts using a mechanized paper cutter (1).
- CT.GCPT.20.500.6 Identify basic paper types, weights, sizes, grades and classifications used in the printing industry (2).
- CT.GCPT.20.500.7 Identify padding equipment and hand tools (1).
- CT.GCPT.20.500.8 Identify padding materials (1).
- CT.GCPT.20.500.9 Produce correctly made pads of paper (1).
- CT.GCPT.20.500.10 Identify stapling and stitching equipment and hand tools (1).
- CT.GCPT.20.500.11 Identify stapling and stitching materials and supplies (1).
- CT.GCPT.20.500.12 Produce side and saddle stitched/stapled products (2).
- CT.GCPT.20.500.13 Identify punching/drilling equipment and hand tools (1).
- CT.GCPT.20.500.14 Identify basic folds for printed products (1).
- CT.GCPT.20.500.15 Make a single fold using an automatic folding machine (1).
- CT.GCPT.20.500.16 Identify collating equipment and hand tools (1).
- CT.GCPT.20.500.17 Make sets of paper using collating equipment in proper sequence (1).
- CT.GCPT.20.500.18 Hand collate sets in proper sequence (1).
- CT.GCPT.20.500.19 Identify die cut products and the basic procedure for die cutting (2).
- CT.GCPT.20.500.20 Understand basic equipment materials and procedures for foil stamping and embossing (2).
- CT.GCPT.20.500.21 Identify soft and hard case binding to include methods and glue applications (2).
- CT.GCPT.20.500.22 Demonstrate safe paper carrying methods, including roll method, etc (1).
- CT.GCPT.20.500.23 Demonstrate basic paper jogging techniques (1).

### **CT.GCPT.20.600 Measurement**

- CT.GCPT.20.600.1 Measure linear dimensions for printing materials in inches & fractions of inches (1).
- CT.GCPT.20.600.2 Measure copy for reduction and enlargement using various methods to determine percentage setting (1).

### **CT.GCPT.20.700 Safety & First Aid**

- CT.GCPT.20.700.1 Identify location(s) of fire safety equipment (1).
- CT.GCPT.20.700.2 Describe proper use of fire safety equipment (1).
- CT.GCPT.20.700.3 List safety rules involving flammable liquids (1).
- CT.GCPT.20.700.4 List the steps to be taken in case of injury in the lab (1).
- CT.GCPT.20.700.5 Identify location(s) of first aid kit(s) and eye wash station(s) (1).
- CT.GCPT.20.700.6 MSDS – Read and comprehend Material Safety Data Sheets (1).
- CT.GCPT.20.700.7 Identify protective safety equipment where needed (gloves, goggles, ear plugs) (1).

- CT.GCPT.20.700.8 Follow proper safety procedures when operating equipment (1).
- CT.GCPT.20.700.9 Follow approved shop dress code for safe operation including necessary personal safety equipment (1).
- CT.GCPT.20.700.10 Pass general lab safety test (1).
- CT.GCPT.20.700.11 Use approved methods to dispose of waste materials (1).
- CT.GCPT.20.700.12 Read, comprehend and follow instructions on warning labels (1).
- CT.GCPT.20.700.13 Demonstrate common sense when working with others (1).
- CT.GCPT.20.700.14 Demonstrate a working knowledge of the safety color code (1).

### **CT.GCPT.20.800 Basic Math**

- CT.GCPT.20.800.1 Solve addition of whole number problems – 2 & 3 digits (1).
- CT.GCPT.20.800.2 Solve addition of fraction problems (1).
- CT.GCPT.20.800.3 Solve addition of decimal problems – 2 & 3 digits (1).
- CT.GCPT.20.800.4 Solve subtraction of whole number problems – 2 & 3 digits (1).
- CT.GCPT.20.800.5 Solve subtraction of fraction problems (1).
- CT.GCPT.20.800.6 Solve subtraction of decimal problems – 2 & 3 digits (1).
- CT.GCPT.20.800.7 Solve multiplication of whole numbers – 2 & 3 digits (1).
- CT.GCPT.20.800.8 Solve multiplication of fraction problems (1).
- CT.GCPT.20.800.9 Solve multiplication of decimal problems – 2 & 3 digits (1).
- CT.GCPT.20.800.10 Solve division of whole number problems – 2 & 3 digits (1).
- CT.GCPT.20.800.11 Solve division of fraction problems (1).
- CT.GCPT.20.800.12 Solve division of decimal problems – 2 & 3 digits (1).
- CT.GCPT.20.800.13 Solve fraction to decimal conversion problems (1).
- CT.GCPT.20.800.14 Solve decimal to fraction conversion problems (1).
- CT.GCPT.20.800.15 Solve decimals to percent conversion problems (1).
- CT.GCPT.20.800.16 Solve percent to decimals conversion problems (1).
- CT.GCPT.20.800.17 Solve basic ratio and proportion problems (1).
- CT.GCPT.20.800.18 Solve basic linear measurement problems (1).
- CT.GCPT.20.800.19 Solve basic type calculation problems (1).
- CT.GCPT.20.800.20 Solve basic liquid measurement problems (1).
- CT.GCPT.20.800.21 Solve basic paper cutting calculations (1).
- CT.GCPT.20.800.22 Solve basic points and picas measurement problems (1).
- CT.GCPT.20.800.23 Solve inches to picas conversion problems (1).
- CT.GCPT.20.800.24 Solve picas to inches conversion problems (1).
- CT.GCPT.20.800.25 Solve inches to points conversion problems (1).
- CT.GCPT.20.800.26 Solve points to inches conversion problems (1).
- CT.GCPT.20.800.27 Solve cost calculating problems (2).

### **CT.GCPT.20.900 Job Application and Interpersonal Skills**

- CT.GCPT.20.900.1 Demonstrate proper work ethic/habits (2).
- CT.GCPT.20.900.2 List means of locating job openings (2).
- CT.GCPT.20.900.3 Read and comprehend want ads (2).
- CT.GCPT.20.900.4 Write a personal resume (2).
- CT.GCPT.20.900.5 Write a cover letter for obtaining a printing job (2).
- CT.GCPT.20.900.6 Read and comprehend an employment application form (2).

- CT.GCPT.20.900.7 Complete a job employment application form (2).
- CT.GCPT.20.900.8 Practice job interview skills and appearance (2).
- CT.GCPT.20.900.9 Complete a telephone interview for a printing job (2).
- CT.GCPT.20.900.10 Write a follow-up letter (2).
- CT.GCPT.20.900.11 Make a follow-up telephone call (2).
- CT.GCPT.20.900.12 Evaluate benefit package for employment (2).
- CT.GCPT.20.900.13 Compare job opportunities (2).
- CT.GCPT.20.900.14 Observe a commercial printing operation (2).

## **CT.GCPT.30 Electronic Prepress and Publishing**

### **CT.GCPT.30.100 Orientation**

- CT.GCPT.30.100.1 Read and comprehend production information on a job jacket/ticket (1).
- CT.GCPT.30.100.2 Identify the various kinds of items that can be designed and produced using desktop publishing (1).
- CT.GCPT.30.100.3 Identify the basic principles of design (i.e. unity, contrast, page proportions, balance, etc) (1).
- CT.GCPT.30.100.4 Incorporate the basic design principles in hand drawn sketches and measured layouts (1).
- CT.GCPT.30.100.5 Identify line images (1).
- CT.GCPT.30.100.6 Identify continuous tone/halftone images (1).
- CT.GCPT.30.100.7 Identify basic process color principles and kinds of four color printing (2).
- CT.GCPT.30.100.8 Identify digital color proofing techniques (2).
- CT.GCPT.30.100.9 Identify digital image preparation and output equipment (1).
- CT.GCPT.30.100.10 Identify basic desktop publishing equipment (1).
- CT.GCPT.30.100.11 Explain the limitations and capabilities of desktop publishing (1).
- CT.GCPT.30.100.12 Identify the differences between bitmap and vector (1).
- CT.GCPT.30.100.13 Define postscript (1).
- CT.GCPT.30.100.14 Distinguish between word processing, page layout, and graphic software (1).
- CT.GCPT.30.100.15 Demonstrate the operation of digital image preparation (1).
- CT.GCPT.30.100.16 Select appropriate software for word processing, graphics, scanning, and page layout (1).
- CT.GCPT.30.100.17 Demonstrate a keyboard typing proficiency of 20 WPM (1).
- CT.GCPT.30.100.18 Prepare a series of hand drawn sketches for layouts incorporating appropriate marks (i.e. gutters, register marks, fold lines, etc.) (1).
- CT.GCPT.30.100.19 Prepare a dummy for a multi-page signature (2).
- CT.GCPT.30.100.20 Identify various computer platforms (2).
- CT.GCPT.30.100.21 Define removable media (2).
- CT.GCPT.30.100.22 Define CTP (2).

### **CT.GCPT.30.200 Type**

- CT.GCPT.30.200.1 Measure copy/text in points and picas using a line gauge (1).
- CT.GCPT.30.200.2 Measure type using a type sizing gauge (1).
- CT.GCPT.30.200.3 Identify x-height, meanline, baseline, ascenders, descenders, and their roles in measuring and designing with type (1).
- CT.GCPT.30.200.4 Identify caps, lowercase, uppercase, small caps, and ligatures (1).

- CT.GCPT.30.200.5 Define dingbats, bullets, rules, and symbols and their uses in publications (1).
- CT.GCPT.30.200.6 Distinguish between display (headline) type and body (text) type by their point sizes and styles (1).
- CT.GCPT.30.200.7 Identify the basic type styles and their uses (1).
- CT.GCPT.30.200.8 Distinguish between serif and sans serif type styles (1).
- CT.GCPT.30.200.9 Explain letter spacing, tracking, and kerning of type characters (1).
- CT.GCPT.30.200.10 Explain word spacing and the relation of em and en in paragraph spacing (1).
- CT.GCPT.30.200.11 Define line spacing and explain the measurement principles for the leading of text (1).
- CT.GCPT.30.200.12 Define the type arrangements: flush left-ragged right, flush right-ragged left, centered and justified (1).
- CT.GCPT.30.200.13 Explain the difference between postscript type and truetype (2).
- CT.GCPT.30.200.1 Understand font management from customer's files (2).

### **CT.GCPT.30.300 Page Layout**

- CT.GCPT.30.300.1 Select appropriate page layout software for a given job (1).
- CT.GCPT.30.300.2 Demonstrate the use of an electronic dictionary, spell checker, and automatic hyphenation (1).
- CT.GCPT.30.300.3 Demonstrate a functional knowledge of computer menus and palette for the software in use (1).
- CT.GCPT.30.300.4 Demonstrate text alignment, element positioning and rules of page design for printed matter (1).
- CT.GCPT.30.300.5 Set up column grids for electronic page layout according to job specifications (1).
- CT.GCPT.30.300.6 Proofread manuscript copy and make necessary corrections using basic proofreading marks (1).
- CT.GCPT.30.300.7 Set-up/select appropriate pagination for given job (2).
- CT.GCPT.30.300.8 Set text with appropriate margins, formatting, gutters, leading headings (1).
- CT.GCPT.30.300.9 Import copy from word processing program to page layout program according to job specifications (2).
- CT.GCPT.30.300.10 Design and produce a document using desired fonts, styles, margins, indents, and tabs (1).
- CT.GCPT.30.300.11 Proofread, edit and make corrections/adjustment to copy on screen (1).
- CT.GCPT.30.300.12 Place graphics from an existing file into a publication (1).
- CT.GCPT.30.300.13 Demonstrate the procedure for cropping graphics electronically (1).
- CT.GCPT.30.300.14 Create a 2 sided, 3 panel brochure using graphics and text for publication (1).
- CT.GCPT.30.300.15 Create a 4 page newsletter using windows, blocks text, graphics, frames and headings (1).
- CT.GCPT.30.300.16 Create a 2 page newsletter using drop caps for paragraph openings, wrap-around (run-a-rounds) and graphics (1).
- CT.GCPT.30.300.17 Create a printed piece using tines, reverses and manipulated type for effect (1).
- CT.GCPT.30.300.17 Produce a multicolor flyer by outputting individual spot colors (1).
- CT.GCPT.30.300.16 Demonstrate a knowledge of available page layout programs – capabilities, advantages, disadvantages (2).
- CT.GCPT.30.300.17 Identify DPI, LPI, and PPI (2).

- CT.GCPT.30.300.19 Compare and contrast DPI and PPI (2).
- CT.GCPT.30.300.20 Demonstrate knowledge of scaling (1).
- CT.GCPT.30.300.21 List two raster programs (2).

#### **CT.GCPT.30.400 Scanning Operations**

- CT.GCPT.30.400.1 Identify scanner hardware and its basic components and operations (1).
- CT.GCPT.30.400.2 Identify basic scanner software, its uses and limitations (1).
- CT.GCPT.30.400.3 Demonstrate appropriate scanner/program operations for line work (1).
- CT.GCPT.30.400.4 Demonstrate appropriate scanner/program operations for continuous tone copy (1).
- CT.GCPT.30.400.5 Place scanned graphics/photos into existing page layout (1).

#### **CT.GCPT.30.500 Graphics**

- CT.GCPT.30.500.1 Demonstrate a functional knowledge of commands/codes/menus and
- CT.GCPT.30.500.2 Procedures for their uses (1).
- CT.GCPT.30.500.3 Draw a design appropriate for a given job using a graphics program (1).
- CT.GCPT.30.500.4 Create a design using tints and fills for a given job using a graphics program (1).
- CT.GCPT.30.500.5 Create a design using manipulate type (rotated, circled, extended, etc.) for a publication (1).
- CT.GCPT.30.500.6 Trace a drawing/photograph using a graphics program (1).
- CT.GCPT.30.500.7 Create a design/publication using electronic clip art (1).
- CT.GCPT.30.500.8 Observe a digital image preparation area at a commercial printer (1).

#### **CT.GCPT.30.600 Advanced Digital Image**

- CT.GCPT.30.600.1 Read and comprehend production information on job jacket/ticket (2).
- CT.GCPT.30.600.2 Identify basic color theory (2).
- CT.GCPT.30.600.3 Describe the application of digital photography in electronic imaging (2).
- CT.GCPT.30.600.4 List the capabilities and functions of image setters (2).
- CT.GCPT.30.600.5 Identify and compare digital proofing systems (2).
- CT.GCPT.30.600.6 Identify network operating systems (2).
- CT.GCPT.30.600.7 Describe the current systems/techniques for outputting files direct to plate material (2).
- CT.GCPT.30.600.8 Demonstrate an understanding of the PostScript page description language (2).
- CT.GCPT.30.600.9 List the advantages and disadvantages of different storage media, such as syquest, optical, jaz, and zip (2).
- CT.GCPT.30.600.10 List the use and capabilities of storage devices for electronic imaging work, transport and storage (2).
- CT.GCPT.30.600.11 Describe the strengths and weaknesses of TIFF, EPS, PICT, PDF, and DCS in a PostScript Environment (2).
- CT.GCPT.30.600.12 Translate files from WIN to Mac formats and Mac to Win (2).
- CT.GCPT.30.600.13 Use a file compression utility for file transfer or storage (2).
- CT.GCPT.30.600.14 Describe the differences between TrueType and PostScript fonts (2).
- CT.GCPT.30.600.15 Create a single color layout using clip art (1).
- CT.GCPT.30.600.16 Create a single color layout using work and turn/work and tumble (1).
- CT.GCPT.30.600.17 Change contrast using tint screens and shading techniques (1).

- CT.GCPT.30.600.18 Create logo design on computer and integrate into a brochure design (1).
- CT.GCPT.30.600.19 Produce curved or special effects type using a graphics application (1).
- CT.GCPT.30.600.20 Produce a job on the computer using electronic imposition (1).
- CT.GCPT.30.600.21 Create a job that incorporates electronic trapping (1).
- CT.GCPT.30.600.22 Produce a multicolor job that includes scans, text and spot color artwork (1).
- CT.GCPT.30.600.23 Collect for output all elements of a page layout (1).
- CT.GCPT.30.600.24 Follow instructions to produce, modify or according to customer supplied criteria (2).
- CT.GCPT.30.600.25 Use OCR software to capture text (2).
- CT.GCPT.30.600.26 Create logo based on scanned template (1).
- CT.GCPT.30.600.27 Calibrate a desktop scanner for producing halftone scans (1).
- CT.GCPT.30.600.28 Produce a halftone using a desktop scanner (1).
- CT.GCPT.30.600.29 Scan a continuous tone color original and convert to B & W (1).
- CT.GCPT.30.600.30 Calibrate a desktop scanner for producing color scans (1).
- CT.GCPT.30.600.31 Produce a color scan (1).
- CT.GCPT.30.600.32 Use a photo manipulation program to perform basic color correction and basic image cloning (1).
- CT.GCPT.30.600.33 Perform font management activities (2).
- CT.GCPT.30.600.34 Use backup utility to create backup tapes, cartridges, CDR or diskettes (2).
- CT.GCPT.30.600.35 Use backup utility to restore files to the hard drive or diskette (2).
- CT.GCPT.30.600.36 Perform system troubleshooting procedures (2).
- CT.GCPT.30.600.37 Demonstrate troubleshooting procedures for PostScript errors, such as limit check (2).
- CT.GCPT.30.600.38 Calibrate a color monitor (2).
- CT.GCPT.30.600.39 Describe how to calibrate an image setter (2).
- CT.GCPT.30.600.40 Describe how film processor variations effect final output (2).
- CT.GCPT.30.600.41 Calibrate and perform quality control checks on the film processor (2).
- CT.GCPT.30.600.42 Explain the use of quality control data (2).
- CT.GCPT.30.600.43 Perform tone correction using curves and unsharp masking (2).
- CT.GCPT.30.600.44 Adjust image for printing on variety of subtracts (coated vs. uncoated sheets) (2).
- CT.GCPT.30.600.45 Explain dot gain and its effect on the prep of an image (2).
- CT.GCPT.30.600.46 Perform conversion of bitmapped art to vector art (2).
- CT.GCPT.30.600.47 Demonstrate knowledge of densitometry (2).
- CT.GCPT.30.600.48 Demonstrate knowledge of PPI, LPI, DPI, relationships (2).
- CT.GCPT.30.600.49 Explain UCR/GCR settings (2).
- CT.GCPT.30.600.50 Perform rescreening functions and demonstrate knowledge of screen angles (2).
- CT.GCPT.30.600.51 Explain limitations of RGB to CMYK conversion (2).
- CT.GCPT.30.600.52 Describe proper plate/film exposure quality control (2).
- CT.GCPT.30.600.53 Perform preflight/file repair procedures (2).
- CT.GCPT.30.600.54 Perform PPI/sizing calculations for desktop scanner (2).

## **CT.GCPT.40 Process Camera, Stripping, and Platemaking**

### **CT.GCPT.40.100 Assembly & Platemaking Tasks**

- CT.GCPT.40.100.1 Read and comprehend production information from job jacket/ticket (1).
- CT.GCPT.40.100.2 Identify safety considerations in stripping operations (1).
- CT.GCPT.40.100.3 Practice safe work habits in stripping operations (1).
- CT.GCPT.40.100.4 Identify basic hand tools in stripping (1).
- CT.GCPT.40.100.5 Identify basic materials in stripping (1).
- CT.GCPT.40.100.6 Identify basic equipment in stripping (1).
- CT.GCPT.40.100.7 Establish “true edge” and “vertical alignment” on a stripping table (square up) (1).
- CT.GCPT.40.100.8 Lay out, measure and rule an unlined masking sheet showing relevant guidelines (edge of sheet, gripper margins, plate clamp, center marks, etc.) for 8 1/2 x 11 single color work (2).
- CT.GCPT.40.100.9 Assemble and strip an 8 1/2 x 11 negative (1).
- CT.GCPT.40.100.10 Make appropriate corrections to film negative and flat (1).
- CT.GCPT.40.100.11 Lay out, measure and rule an unlined masking sheet showing relevant guidelines (edge of sheet, gripper margins, plate clamp, center marks, etc.) for 11 x 17 single color work (1).
- CT.GCPT.40.100.12 Assemble and strip single color flat for 11 x 17 using pre-ruled masking sheet (2).
- CT.GCPT.40.100.13 Lay out, measure and rule an unlined masking sheet showing relevant guidelines (edge of sheet, gripper margins, plate clamp, center marks, etc.) for 8 1/2 x 11 multi-color work using pin register system (1).
- CT.GCPT.40.100.14 Strip a flat for single color envelopes (2).
- CT.GCPT.40.100.15 Strip a flat for single color work and turn imposition (1).
- CT.GCPT.40.100.16 Strip a flat for single color work and tumble imposition (1).
- CT.GCPT.40.100.17 Strip a single color flat the includes screen tints (2).
- CT.GCPT.40.100.18 Strip single color flats for a 4-page signature (2).
- CT.GCPT.40.100.19 Strip single color flats for a 8-page signature (2).
- CT.GCPT.40.100.20 Strip a line and halftone combination flat (2).
- CT.GCPT.40.100.21 Strip a multicolor job with color quality control bars for a 4-page signature(2).
- CT.GCPT.40.100.22 Strip a single color step and repeat flat (without pin register) (2).
- CT.GCPT.40.100.23 Strip single color step and repeat flat using a pin register system (2).
- CT.GCPT.40.100.24 Check registration of multiple flats using daylight proofing material (2).
- CT.GCPT.40.100.25 Strip a multicolor job that uses masking film as a mechanical negative on one (2).
- CT.GCPT.40.100.26 Identify and strip a multi-color job using registration marks and clear masking materials (2).
- CT.GCPT.40.100.27 Produce color work with color proofing materials (2).
- CT.GCPT.40.100.28 Produce a dummy for a book with a lip signature (2).
- CT.GCPT.40.100.29 Produce a 16-page signature dummy with proper imposition, pagination and directions (2).
- CT.GCPT.40.100.30 Identify safety considerations for platemaking (1).
- CT.GCPT.40.100.31 Practice safe work habits in platemaking operations (1).
- CT.GCPT.40.100.32 Identify basic parts of the platemaker and metal plates (1).
- CT.GCPT.40.100.33 Identify basic parts of the photo direct or direct transfer platemaker
- CT.GCPT.40.100.34 Identify plate materials and plate types

- CT.GCPT.40.100.35 Identify processing chemicals and methods (1).
- CT.GCPT.40.100.36 Identify platemaking procedures for metal plates (1).
- CT.GCPT.40.100.37 Determine exposure time for metal plates using transparent step scale and rub down test (2).
- CT.GCPT.40.100.38 Prepare metal plates (expose, process, and store) (1).
- CT.GCPT.40.100.39 Make additions, deletions and repairs to an offset plate (1).
- CT.GCPT.40.100.40 Define CTP technology (2).
- CT.GCPT.40.100.41 Observe an image assembly and platemaking operation at a commercial printer (1).

### **CT.GCPT.40.200 Advanced Image Assembly & Platemaking Tasks**

- CT.GCPT.40.200.1 Read advanced image and comprehend production information from job ticket/jacket (2).
- CT.GCPT.40.200.2 Identify safety considerations in the image assemble platemaking area (2).
- CT.GCPT.40.200.3 Read and comprehend material safety data sheets (2).
- CT.GCPT.40.200.4 List the characteristics and uses of the various exposure systems (2).
- CT.GCPT.40.200.5 Understand total pin register systems (2).
- CT.GCPT.40.200.6 Demonstrate various imposition systems such as work & turn, work & tumble(or flop), perfecting, high-folio lip and nesting (2).
- CT.GCPT.40.200.7 Describe color theory (2).
- CT.GCPT.40.200.8 Describe the methods of screen angling as used in process color assembly (2).
- CT.GCPT.40.200.9 Produce a blueline proof (1).
- CT.GCPT.40.200.10 Identify current trends in your local area (2).

## **CT.GCPT.50 Press & Finishing Process**

### **CT.GCPT.50.100 Platemaking**

- CT.GCPT.50.100.1 Read and comprehend production information from job jacket/ticket (1).
- CT.GCPT.50.100.2 Make a plate using screen tints (1).
- CT.GCPT.50.100.3 Make a step/repeat using cutout or butterflies (1).
- CT.GCPT.50.100.4 Make a step/repeat using pin register system (1).
- CT.GCPT.50.100.5 Prepare a plate for multiple exposure on one side (1).
- CT.GCPT.50.100.6 Make plates for multi-color work (1).

### **CT.GCPT.50.200 Press Operations**

- CT.GCPT.50.200.1 Identify safety considerations for press operation (1).
- CT.GCPT.50.200.2 Practice safe work habits on duplicator operations (1).
- CT.GCPT.50.200.3 Identify basic parts and systems of a press (1).
- CT.GCPT.50.200.4 Identify basic press operation procedures (1).
- CT.GCPT.50.200.5 Handle and jog paper stock (wire/felt, watermarks, carbonless sequence) (1).
- CT.GCPT.50.200.6 Identify paper problems: curling, etc. (2).
- CT.GCPT.50.200.7 Identify offset ink types and uses (2).

- CT.GCPT.50.200.8 Identify ink additives (2).
- CT.GCPT.50.200.9 Identify ink problems (2).
- CT.GCPT.50.200.10 Describe a procedure to set up, mix and test ink for printing using ink color chart for mixing requirements (2).
- CT.GCPT.50.200.11 Identify fountain solutions and additives (2).
- CT.GCPT.50.200.12 Identify mixed fountain solution testing materials, equipment and procedures (2).
- CT.GCPT.50.200.13 Mix fountain solutions using appropriate ratios (1).
- CT.GCPT.50.200.14 Makeready paper systems (1).
- CT.GCPT.50.200.15 Makeready inking systems (1).
- CT.GCPT.50.200.16 Makeready dampening systems (1).
- CT.GCPT.50.200.17 Print single color job using a metal plate (1).
- CT.GCPT.50.200.18 Print single color job using photo direct and/or electrostatic masters (1).
- CT.GCPT.50.200.19 Print a single color job two-sided (1).
- CT.GCPT.50.200.20 Print a single color job on carbonless stock (2).
- CT.GCPT.50.200.21 Print a single color job on envelopes (2).
- CT.GCPT.50.200.22 Print a single color job on heavy stock (1).
- CT.GCPT.50.200.23 Print a single color job work and tumble (1).
- CT.GCPT.50.200.24 Print a single color job work and turn (1).
- CT.GCPT.50.200.25 Print a two color job on a duplicator without register marks (1).
- CT.GCPT.50.200.26 Print a two color job on a duplicator using register marks (1).
- CT.GCPT.50.200.27 Print a two color job with color bars (2).
- CT.GCPT.50.200.28 Print a two-side/two color job (1).
- CT.GCPT.50.200.29 Print a two color job on a duplicator using a T-head (2).
- CT.GCPT.50.200.30 Perform major cleanup and roller treatment (1).
- CT.GCPT.50.200.31 Make needed pressure settings on a press (2).
- CT.GCPT.50.200.32 Install and set blanket on a press (2).
- CT.GCPT.50.200.33 Clean and secure duplicator for down time (1).
- CT.GCPT.50.200.34 Evaluate print quality and make needed adjustments to improve printed piece (1).
- CT.GCPT.50.200.35 Print close register color work (2).
- CT.GCPT.50.200.36 Print heavy solid work making needed adjustments to improve quality (2).
- CT.GCPT.50.200.37 Observe a press operation at a commercial printer (1).

**CT.GCPT.50.300 Advanced Press Operations**

- CT.GCPT.50.300.1 Read and comprehend production information from job jacket/ticket (2).
- CT.GCPT.50.300.2 Identify safety considerations in press operations (2).
- CT.GCPT.50.300.3 Identify the hand tools used in press operations (2).
- CT.GCPT.50.300.4 Identify the major and minor systems of the press (2).
- CT.GCPT.50.300.5 Describe the operational procedures for each of the controls and adjustments on the press (2).
- CT.GCPT.50.300.6 Identify different feeding systems (2).
- CT.GCPT.50.300.7 Identify different delivery, drying and dampening systems (2).
- CT.GCPT.50.300.8 Describe the major systems of a web press (2).
- CT.GCPT.50.300.9 List the advantages and disadvantages of a web press (2).
- CT.GCPT.50.300.10 Identify and use a mechanical control of registration (2).

- CT.GCPT.50.300.11 Identify total pin registration system (2).
- CT.GCPT.50.300.12 Identify mechanical press problems as they relate to quality control (2).
- CT.GCPT.50.300.13 Select the proper stock according to job specifications (2).
- CT.GCPT.50.300.14 Jog and load stock (2).
- CT.GCPT.50.300.15 Prepare press chemistry (2).
- CT.GCPT.50.300.16 Use and interpret Conductivity pH Meter (2).
- CT.GCPT.50.300.17 Set up, mix and test ink for printing using color chart for mixing requirements (2).
- CT.GCPT.50.300.18 Print a job on lightweight paper (2).
- CT.GCPT.50.300.19 Print a multi-color, 2-sided job on coated stock (2).
- CT.GCPT.50.300.20 Print a process color job on uncoated paper (2).
- CT.GCPT.50.300.21 Print a process color job on coated paper (2).
- CT.GCPT.50.300.22 Print a job on card or board stock (2).
- CT.GCPT.50.300.23 Print on a variety of paper finishes (2).
- CT.GCPT.50.300.24 Print a heavy solid coverage on coated stock (2).
- CT.GCPT.50.300.25 Print a series of jobs using a variety of different impositions (2).
- CT.GCPT.50.300.26 Describe paper characteristics (2).
- CT.GCPT.50.300.27 Demonstrate a knowledge of varnishes and coatings (2).
- CT.GCPT.50.300.28 Describe the advantages and disadvantages of waterless printing (2).
- CT.GCPT.50.300.29 Describe perfecting and identify the primary gripper (2).
- CT.GCPT.50.300.30 Print a job containing a duotone (2).
- CT.GCPT.50.300.31 Demonstrate proper waste disposal methods (2).
- CT.GCPT.50.300.32 Describe the difference between process and PMS colors (2).
- CT.GCPT.50.300.33 Identify the common problems in color reproduction and describe the solutions (2).
- CT.GCPT.50.300.34 Describe the differences encountered in printing a process color job on coated and uncoated stock (2).
- CT.GCPT.50.300.35 Interpret color bars on a press sheet to determine quality and corrective action if necessary (2).
- CT.GCPT.50.300.36 Identify color densitometry principles and applications (2).
- CT.GCPT.50.300.37 Perform preventive maintenance (2).
- CT.GCPT.50.300.38 Remove, replace and reset roller pressures (2).
- CT.GCPT.50.300.39 Select and install plate and/or blanket packing (2).
- CT.GCPT.50.300.40 Change the blanket (2).
- CT.GCPT.50.300.41 Interpret and apply industry standards, such as SNAP, Gracol and SWOP (2).
- CT.GCPT.50.300.42 Describe and identify direct imaging technologies (2).
- CT.GCPT.50.300.43 List the advantages of plate scanning technology (2).
- CT.GCPT.50.300.44 Calculate percentages of density for press (2).
- CT.GCPT.50.300.45 Define the various types of digital printing and describe their advantages and disadvantages (2).

#### **CT.GCPT.50.400 Finishing and Binding**

- CT.GCPT.50.400.1 Read and comprehend production information from job jacket/ticket (1).
- CT.GCPT.50.400.2 Identify safety considerations in bindery operations (1).
- CT.GCPT.50.400.3 Practice safe work habits in bindery operations (1).

- CT.GCPT.50.400.4 Identify basic hand tools in bindery (1).
- CT.GCPT.50.400.5 Identify basic materials in bindery (1).
- CT.GCPT.50.400.6 Identify basic equipment in bindery (1).
- CT.GCPT.50.400.7 Use folding equipment to produce an accordion fold (1).
- CT.GCPT.50.400.8 Describe the fundamentals of saddle stitching and perfect binding (1).
- CT.GCPT.50.400.9 Describe various paper inventory and storage techniques (1).
- CT.GCPT.50.400.10 Estimate the cost of materials and production for performing bindery operations such as cutting, scoring, folding, packaging and coating (2).
- CT.GCPT.50.400.11 Describe binding processes and techniques (1).
- CT.GCPT.50.400.12 Set-up and demonstrate a 3-hole drill to produce a drill job (1).