

		PRINTING TECHNOLOGY																	
State Standards		RATING SCALE:	National Codes		Secondary Delivery		Local Task ID Code/Delivery Point			Post Secondary Delivery									
		4 = Exceeds criteria and/or able to teach task 3 = Accomplishes task to criteria 2 = Accomplishes task with help 1 = Exposed to the task N = Not exposed to task																	
SECTION # 3																			
CLUSTER PATHWAY SKILLS																			
					4	3	2	1	N		4	3	2	1	N				
I		PRINTING																	
	A	Apply knowledge of the processes required for the production of various printed products.	1																
	1	Demonstrate the diversity of the printing process to include paper, non-paper substrates, and specialty products.	1.1																
	a	Identify the printing processes used to create books, money, containers, and wallpaper.	1.11																
	b	Identify printing processes used on non-paper substrates, including packaging, Mylar, and foils.	1.12																
	c	Identify the processes used to print on credit cards, laminate flooring, pharmaceuticals, and food products.	1.13																
	2	Examine the impact of the printing industry on the U.S. economy.	1.2																
	a	Describe economic aspects of printing in terms of profit and number of employees involved in the industry.	1.21																
	3	Examine the impact of emerging technologies in hardware and software applications.	1.3																
	a	Describe the expansion of printing with the development of computer applications.	1.31																
	b	Describe the resulting change in lifestyle of printing employees related to technology.	1.32																
	B	Manage the printing through customer service and sales, scheduling, and quality control.	2																
	1	Apply knowledge of customer needs and expectations with printing services being promoted.	2.1																
	a	Identify customer requirements, timelines, and budget in a given situation.	2.11																
	b	Verify final casts and ability to produce materials for time specified to customer.	2.12																
	2	Apply knowledge of services, equipment, capabilities, workflow process, data acquisition, and technology to customer service.	2.2																
	a	Analyze cluster data files to determine compatibility with printing processes.	2.21																
	b	Determine if graphics, images, film fonts, inserts, etc. are required for a print job.	2.22																
	c	Disseminate customer information to production department.	2.23																
	d	Communicate with customer to provide updates in schedule and product status.	2.24																
	3	Analyze scheduling processes to ensure timely completion of projects.	2.3																
	a	Plan project schedule related to job specifications.	2.31																
	b	Schedule resources to complete job.	2.32																
	c	Monitor project status.	2.33																
	4	Identify quality control measures.	2.4																
	a	Communicate quality standards and expectations for a job to technical production staff.	2.41																
	b	Monitor project quality to meet required standards.	2.42																
	c	Specify points in process for client approval.	2.43																
	d	Demonstrate copying and backup processes for client files.	2.44																
	C	Demonstrate preparation of customer materials for imaging.	3																
	1	Demonstrate previewing materials for imaging (pre-flighting).	3.1																
	a	Analyze client disc files to ensure software and hardware compatibility for the job components.	3.11																
	b	Identify required job components including graphics, fonts, and images; transparencies; hard mechanicals and film.	3.12																
	c	Demonstrate resolution of file errors.	3.13																
	2	Apply knowledge of camera & scanner operations to produce images using process photography.	3.2																
	a	Identify the types of press and types of paper for press gain compensation.	3.21																
	b	Analyze original to determine required reproduction techniques.	3.22																
	c	Demonstrate capturing an image.	3.23																
	d	Differentiate between transmissive versus reflective light.	3.24																
	e	Illustrate understanding of color separation (RGB to CMYK).	3.25																

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	3	Demonstrate conversion from analog to digital forms, using scanning equipment.	3.3							
	a	Demonstrate adjusting the scanning equipment for various processes.	3.31							
	b	Demonstrate how to adjust images.	3.32							
	c	Retrieve digital images.	3.33							
	4	Demonstrate moving manuscripts into a form that is camera ready copy.	3.4							
	a	Use work processing to develop camera-ready copy.	3.41							
	D	Analyze image retrieval through refinement, page assembly processes and type set, and trapping.	4							
	1	Identify processes to modify images to conform to layout design.	4.1							
	a	Comprehend the process of color separation.	4.11							
	b	Identify processes used to manipulate the images to meet specifications.	4.12							
	2	Examine page assembly process.	4.2							
	a	Identify the processes involved in building the document.	4.21							
	b	Identify the steps in preparing files for imaging.	4.22							
	c	Identify problems that can occur in the page assembly process.	4.23							
	3	Examine trapping processes.	4.3							
	a	Define trapping.	4.31							
	b	Identify trapping requirements and processes.	4.32							
	E	Analyze output processes, including digital, film, directive playmaking, and cylinders.	5							
	1	Examine digital output software.	5.1							
	a	Explain the processes for which CTP, PDF, ADOBE, PS, and DSC would be used.	5.11							
	2	Examine film output processes.	5.2							
	a	Describe the critical elements in creating proofs and films.	5.21							
	3	Examine directive processes.	5.3							
	a	Describe the processes that take output directly to the press.	5.31							
	4	Examine platemaking and cylinders as output processes.	5.4							
	a	Describe platemaking and cylinder-making.	5.41							
	F	Examine the finishing and distribution operations related to printing.	6							
	1	Apply knowledge and skills related to binding processes use to finish printed materials.	6.1							
	a	Define binding processes, including cutting, folding, and trimming.	6.11							
	b	Calculate basic paper counts from a stock sheet.	6.12							
	c	Demonstrate folding a single and tri-fold brochure, adapting equipment as needed.	6.13							
	d	Identify saddle stitch, perfect bind, and flat stitching in various printed materials.	6.14							
	e	Demonstrate basic saddle stitch and simple padding press operations.	6.15							
	2	Examine the specialty operations related to finishing.	6.2							
	a	Define specialty processes.	6.21							
	b	Identify embossing, foil stamping, die cutting, and laminating samples in printed materials.	6.22							
	3	Apply packaging knowledge and skills to provide the customer with delivery of the product as specified.	6.3							
	a	Identify how paper labels, ink jet labels, and bulk forms are used and printed for packages.	6.31							
	b	State the postal regulations related to packages, contents, size and destinations.	6.32							
	c	Describe each of the following mail processes & when each is used: sorting, barcodes, bundling, and sacking.	6.33							
	d	Demonstrate meeting customer needs in labeling, packaging and shipping to meet expected standards.	6.34							
	G	Apply knowledge of basic printing processes.	7							
	1	Explain printing processes related to lithographic, planographic, gravure, intaglio, and screen.	7.1							
	a	Define each process.	7.11							
	b	Identify the processes that are from the surface, below the surface, and through the surface.	7.12							
	c	Describe the product application for each type of process.	7.13							
	2	Examine ink and ink processes used for various types of printing.	7.2							
	a	Identify how to select an ink for a given printing process.	7.21							
	b	Describe how the properties of ink affect coverage, color, and color separation.	7.22							

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	c	Explain the application of ink for printing processes, include those from the surface, below the surface, and through the surface.	7.23										

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	3	Apply knowledge of basic printing processes.	7.3										
	a	Identify basic offset duplication parts and operation.	7.31										
	b	Perform basic ser-up for printing a single color job.	7.32										
	c	Produce a printed single color job using an offset duplicator.	7.33										
	d	Perform basic cleanup and maintenance.	7.34										