

Outline		References	
<b>A. LEADERSHIP</b>		T&I Leadership Guide (Available on 2004 C-TE Summer Conference CD)	
<b>G201. Demonstrate communication, problem solving, and team building skills.</b>			
<b>G201.01 Demonstrate communication skills.</b>			
A. Terms and definitions		Page 30	
1. Outline			
2. Gesture			
3. Demonstration			
4. Introduction to presentation			
5. Body of presentation			
6. Conclusion of presentation			
B. Purposes for using presentations		Page 30	
C. Guidelines for preparing successful presentations		Page 30	
D. Step-by-step method for preparing a presentation		Page 30	
<b>G201.02 Demonstrate problem solving and team building skills.</b>			
A. Terms and definitions		Pages 37-38	
1. Bench marking			
2. Customer			
3. Customer requirements			
4. Supplier			
5. Brainstorming			
6. Check sheets			
7. Surveying			
8. Interviewing			
9. Cost-benefit analysis			
10. Flowcharts			
B. Steps in problem-solving process		Pages 38-39	
1. Identify problem			
2. Describe the causes			
3. Search of possible solutions			
4. Choose a solution			
5. Carry out the solution			
6. Check the solution			
C. Steps in the quality improvement process		Page 39	
1. Identify the end product			
2. Identify the customer			
3. Identify the customer's requirements			
4. Use customer requirements to identify your specifications			
5. Outline steps to follow in product production			
6. Identify and choose evaluation techniques to make sure you are on track.			
7. Determine if current process is adaptable enough to work when necessary changes are made.			
8. Evaluate process and results			
9. Go back to step one			

<b>REFERENCES AND ABBREVIATIONS FOR THEM</b>	<b>Reference 1</b>	<b>References 2,3, and 4</b>	<b>Reference 5</b>
Reference 1: <u>Graphic Communications, The Printed Image</u> by Z.A. Prust	Graphic Communications The Printed Image By Prust	MAVCC	Offset Lithographic Technology by Hird
Reference 2: Graphic Arts: Electronic Prepress and Publishing Published by MAVCC Abbreviation: EP&P			
Reference 3: Graphic Arts: Orientation, Composition, and Paste-up Published by MAVCC Abbreviation: OC&P			
Reference 4: Graphic Arts: Press and Finishing Processes Published by MAVCC Abbreviation: P&FP			
Reference 5: <u>Offset Lithographic Technology</u> by Kenneth Hird			
<b>B. LAB SAFETY</b>			
<b>G202. Demonstrate safety procedures.</b>			
<b>G202.01 Identify terms, definitions, rules, personal protective equipment, OSHA expectations, classes of fires, and related to shop safety.</b>			
<b>MSDS</b>			
A. Terms and definitions	Chapter 2	OC&P 2-5	
1. Combustibles			
2. MSDS			
3. OSHA			
a. Things OSHA expects of an employer			
b. Things OSHA expects of an employee			
4. Nip Points			
5. Personal protective equipment (PPE)			
6. Lockout/tagout			
7. Hazard			
8. VOC			
B. Shop safety rules			
C. Maintaining a safe and orderly shop			
D. Toxic chemicals			
E. Classes of fires			
F. Explain the use of MSDS sheets and warning labels.	P 38-39	OC&P 2-17	
1. Purpose			
2. Location (Must be readily accessible to employees)			
<b>G202.02 Explain approved methods to dispose of waste materials.</b>			
A. Explain waste streams.	P46		
B. Explain four types of waste streams.	P46		
<b>G202.03 Demonstrate safe shop procedures and equipment operation.</b>			
A. Safety and Health Program	P 29	OC&P 2-5 thru 2-16	
B. Mechanical Hazards	P 30		
C. Chemical Hazards	P 35		
D. Fire Prevention	P 40		
E. Noise	P 41		
F. Light Hazards	P 41		
G. Ergonomic Hazards	P 41		
H. Environmental Compliance	P 44		

I. Safety Audit	P48		
<b>G202.04 Follow local classroom rules and procedures. (Supplementary)</b>			
<b>C. PRINTING BUSINESS BASICS</b>			
<b>G203. Apply basic printing business procedures.</b>			
<b>G203.01 Plan a production job.</b>			
A. Terms and definitions	P 518-519	P&FP 5-5 and OC&P 6-5&6	
B. Types of business organizations	P 518-519		
1. Single/sole proprietorship			
2. Partnership			
3. Corporation			
C. Printing estimate	P 516	P&FP 5-7 and 5-19	
D. Job ticket	P 518-519	OC&P 4-21 thru 4-23, Assignment Sheet 4 and P&FP 5-10	
E. Substrate characteristics	P 468		
1. Grain direction (short and long)			
2. Size			
3. Weight			
F. Paper types	P 463	OC&P 6-6&7	
1. Coated and uncoated			
2. Bond/duplicating			
3. Carbonless			
4. Index			
5. Cover			
6. Offset			
7. Newsprint			
8. Envelopes	P 473-474		
G. Paper qualities	P 473	OC&P 6-7&8	
1. Color			
2. Smoothness			
3. Strength			
4. Brightness			
5. Opacity			
<b>G203.02 Solve printing math and measurement problems.</b>			
A. Paper calculations	P 469-472	P&FP 6-9 thru 6-22	
B. Percentages		OC&P 3-26	
C. Averages		OC&P 3-8 thru 3-26	
D. Points and Picas		OC&P 3-8 thru 3-26	
E. Measurements		OC&P 3-8 thru 3-26	
<b>D. DIGITAL FILE PREPARATION</b>			
<b>G204. Demonstrate various digital file preparation methods.</b>			

<b>G204.01 Identify terms and definitions.</b>		EP&P 1-5 and 3-5 & 6	
<b>G204.02 Demonstrate page layout programs.</b>		EP&P 3-9 thru 3-32	
<b>G204.03 Demonstrate digital input operations.</b>			
A. Scanning	P 213-217	EP&P 6-3 thru 6-54	
B. Digital camera	P 218-220 & 566		
<b>G204.04 Demonstrate drawing programs.</b>		EP&P 3-7&8	
A. Raster	P 175	EP&P 6-5&6	
B. Vector	P 176		
C. Bezier curve	P 177		
<b>G204.05 Demonstrate image manipulation programs. Adobe Photoshop</b>		EP&P 3-8&9 and 6-33 thru 6-35 Job Sheets 3&4	Photoshop Classroom in a Book
A. Bitmap formats			
B. Blur			
C. Cloning tool			
D. Cropping			
E. Feathering			
F. Flattening			
G. Grayscale, RGB, CMYK			
H. Hidden tools			
I. History Palette			
J. Layers			
K. Magic word			
L. Marquee			
M. Photoshop toolbar			
N. Pixels editing			
O. Resolution			
P. Stacking order			
L. Tonal correction			
M. Transform tool			
<b>G204.06 Explain preflighting.</b>	P 120	EP&P 3-9, 7-18 & 19	
<b>G204.07 Demonstrate file management software. Adobe Acrobat PDF</b>	P 179-180	EP&P 7-20	
<b>G205. Demonstrate image assembly and platemaking procedures.</b>			
<b>G205.01 Demonstrate advanced image assembly procedures. (Supplementary)</b>			
<b>G205.02 Strip negatives using ruled or unruled masking sheets. (Supplementary)</b>			
<b>G205.03 Strip flats using a pin register system. (Supplementary)</b>			
<b>G205.04 Produce a plate.</b>	Chapter 17		
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B. Computer-to-plate (CTP)	P 360		
C. Photo direct plate	P 359		
D. Presensitized plate (subtractive)	P 356 thru 358, 362, & 363		

<b>E. OFFSET PROCEDURES AND OPERATIONS</b>			
<b>G206. Demonstrate duplicator operations.</b>			
<b>G206.01 Review basic parts and systems of duplicators.</b>		P&FP 3-7 thru 3-9	Chapters 20-22 P 451-550
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2. Sheet separator			
3. Double sheet detector			
4. Side guide			
5. Pile height regulator			
B. Registration (on some models)	P 370	P&FP 1-11 & 12	
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2. Stop finger/head stop			
3. Sheet forwarding roller			
4. Grippers			
C. Printing			
1. Plate/Master cylinder	P 372-374	P&FP 3-9	
2. Blanket cylinder			
3. Impression/Back cylinder			
4. Speed control			
5. Operation control lever			
6. Vertical adjustment lock			
7. Plate skewing adjustment			
D. Dampening	P 376-377	P&FP 1-9	
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b. Ductor roller			
c. Fountain roller			
d. Water fountain			
2. Continuous	P 377		
E. Inking	P 378-379 & 395	P&FP 1-17	
1. Form roller			
2. Ductor roller			
3. Distributor roller			
4. Ink fountain			
5. Ink fountain keys			
6. Oscillating roller/vibrator roller			
7. Ink fountain roller crank			
8. Ink form roller knobs			
F. Delivery	P 380	P&FP 1-19	
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a. Delivery rings			
b. Ejector wheels			
c. Paper receiving tray bail			
d. Side guides			
2. Chain			
a. Back jogger			
b. Receiving dolly			
c. Receiving dolly raise/lower crank			

d. Delivery back stop			
e. Delivery side guides			
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<b>G206.02 Produce single color and multi-color jobs on various substrates.</b>			
A. Substrates	P 459 thru 476		P 392-396
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b. Opacity	P 473		
c. Paper flatness	P 469		
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2. Bond stock or offset paper			P 519-521
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4. Carbonless			P 395
5. Envelope	P 473-474	P&FP 3-55 Job Sheet 6	
6. Coated paper	P 464		
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1) Types of rollers			P 480
2) Function of rollers			P 480
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1) Paper jogging guide			P 522
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2) Dot gain	P 178		
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<b>G206.03 Perform cleanup, maintenance, and troubleshooting procedures on duplicators.</b>			
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B. Safety	P 35-41		
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3. Lubrication			P 496-497
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2. Press problems	P 402-404	P&FP T4-31 thru T4-61	
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<b>F. FINISHING AND BINDING OPERATIONS</b>			
<b>G207. Demonstrate basic finishing and binding operations.</b>			
<b>G207.01 Demonstrate finishing operations.</b>			
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B. Gathering	P 505	P&FP 7-5	
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5. Perfect binding			
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B. Squeegee ----- -----	P 442-444		
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B. Advantages and disadvantages of screen printing	P 442		
<b>G208.03 Demonstrate the screen printing process. (Supplementary)</b>			
<b>H. FLEXOGRAPHY</b>			
<b>G209. Demonstrate flexographic processes.</b>			
<b>G209.01 Identify the equipment and materials used in flexography.</b>			
A. Terms and definitions	P 415		
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2. Sticky back tape	P 423		
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	2. Plastic			
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	4. Foil			
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	<b>G209.02 Identify procedures associated with the flexographic printing process. (Supplementary)</b>			
	A. Mounting the plates	P 417 thru 419		
	B. Webbing the press			
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	<b>G209.03 Identify market segments and products of the flexographic industry. (Supplementary)</b>	P 415		
	<b>G209.04 Demonstrate various flexographic printing processes. (Supplementary)</b>			

**TRADE AND INDUSTRIAL EDUCATION**  
Content Outline For **7912 PRINTING GRAPHICS II**  
(Recommended hours of instruction: [270-360])