Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA100 - JOB PRODUCTION MANAGEMENT

Unit Number: PA100

Dates: Spring 2016 **Hours:** 20.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to estimate, plan, coordinate, and monitor all aspects of job production related to graphic communications.

Tasks:

PA100 - JOB PRODUCTION MANAGEMENT

PA101 - Perform duties associated with positive customer relations.

PA102 - Estimate job costs.

PA103 - Complete customer invoices.

PA104 - Complete production information on job jacket/ticket.

PA105 - Match job specifications with production processes.

PA106 - Plan and coordinate production jobs.

PA107 - Schedule resources for job production.

PA108 - Monitor production.

PA109 - Track incoming customers' requests.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Connecting Anchor/Standard:

- Pennsylvania Core Standards for Mathematics Standard 2.0

Supporting Anchor/Standards:

NUMBERS AND OPERATIONS
Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

Read and interpret information on a job ticket
Compare job tickets for similarities and differences
Draw a floor plan locating production areas in the school print shop
Make an organizational chart of the school print shop
Steps for initiating a printing job
Components of a job ticket
Quality control
Items essential to proper job production control
Production steps of a job using traditional printing methods
Job titles and job responsibilities
Strategies a manager can use to operate a graphic communications business
Major concerns of successful printing plant management
Complete the assigned project
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a notebook
Self-evaluate using a rubric
Complete mathematics assignments
Printing Technology 5E:
Explain how estimates are determined for the length of time required to complete a task and how to use a unit/time standard form.
Explain how fixed costs are identified and determined in production costs

Explain two methods used in job costing
Outline the basic job estimating process
Discuss how a job work order is used to direct a job through scheduling and production control
Describe the major components of an automated data collection and information management system
Describe three approaches to e-management by the Internet
Printing Technology 5E:
Define quality in terms of customer's content and requirement
Recall key terms including continuous quality improvement
Recall the purpose of ISO 9000 Standards Registration
Outline the motivation for customer defined quality management
Recognize the cost of failure
Define customer in terms external and internal clients
Outline a typical total quality management implementation process
Recognize four statistical process control tools, including histograms, Pareto charts, cause and effect charts, and control charts
Outline a six step problem solving process
Name several effective team behaviors
Recall three team roles including leader, scribe, and timekeeper

Skill:

Demonstrate ability to: Read and interpret information on a job ticket
Demonstrate ability to: Compare job tickets for similarities and differences
Demonstrate ability to: Draw a floor plan locating production areas in the school print shop
Demonstrate ability to: Make an organizational chart of the school print shop
Demonstrate ability to: Steps for initiating a printing job
Demonstrate ability to: Components of a job ticket
Demonstrate ability to: Quality control
Demonstrate ability to: Produce the items essential to proper job production control
Demonstrate ability to: Follow the production steps of a job using traditional printing methods
Demonstrate ability to: Complete invoices
Demonstrate ability to: Complete the assigned project
Complete Practical Problems in Mathematics for Graphic Arts
Apply the principles of determining the basic size thickness, and weight of a stock to the printing and graphic communications industry
Complete Practical Problems in Mathematics for Graphic Arts
Apply the principles of figuring and cutting paper
Complete Practical Problems in Mathematics for Graphic Arts
Apply the principles of figuring the most economical cut
Complete Practical Problems in Mathematics for Graphic Arts
Apply the principles of determining the number of sheets required for a job
Complete in Practical Problems in Mathematics for Graphic Arts
Apply the principles of charging for cutting and handling stock
Complete in Practical Problems in Mathematics for Graphic Arts
Apply the principles of figuring the cost of paper stock

Remediation:

Review with teacher assistance
Individual tutoring
Peer tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions

- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner
Know and follow the established safety rules at all times
Use manufactures direction when using equipment

Assessment:

Worksheets
Quizzes
Pre/Posttests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:
www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

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Magazines:
Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:
ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Lam. and Mounting Machine
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA200 - ART AND COPY PREPARATION

Unit Number: PA200

Dates: Spring 2016 **Hours:** 150.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to understand the steps in creating a layout, font choice and the importance of type, and explain the design process work flow.

Tasks:

PA201 - Demonstrate appropriate selection of font for design principle.

PA202 - Identify the three steps in creating a layout (thumbnail, rough and comprehensive).

PA203 - Explain the design process workflow.

Standards / Assessment Anchors

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Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

On-line research about design process work flow
Distinguish among the three stages of layout
Determine the physiology between font types and society
Pretest provided by instructor
Complete the assigned project
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a note book
Self-evaluate using a rubric
Define terms and definitions
Complete mathematics assignments
List functions of design
Arrange in order the steps in a design process
Identify typeface classes in printed material
Measure of type
Identify type alignment
Read and mark proof copy
Classifications of typefaces
Type families
Converting picas, points, and inches
Multiply fractions
Add fractions
Convert fractions and mixed numbers
Flow copy from a word processing program to page layout program according to job specifications
Steps in the design process
Three stages of layout
Reasons for pulling proofs
Types of proofs
Proofreaders' marks
Legal restrictions and trade standards
Copyright notice

Items that may be copyrighted
Items not eligible for copyright
Copyright issues involving the Internet
Provisions for using photographs of people
for advertising purposes
Read and mark proof copy

Skill:

Demonstrate ability to: Read proofreaders' marks
Demonstrate ability to: Read and mark proof copy
Demonstrate ability to: Make thumbnail and rough layouts
Demonstrate ability to: Three stages of layout
Demonstrate ability to: Flow copy from a word processing program to page layout program according to job
specifications Demonstrate ability to: Convert fractions and mixed numbers
Demonstrate ability to: Add fractions
Demonstrate ability to: Multiply fractions
Demonstrate ability to: Converting picas, points, and inches
Demonstrate ability to: Complete the assigned project
Make thumbnails and rough layouts
Demonstrate ability to: Label magazine ads that utilize principles of design
Demonstrate ability to: Identify types of art in printed materials
Demonstrate ability to: Define terms and definitions
Arrange in order the steps in a design process
Demonstrate ability to: List functions of design
Demonstrate ability to: Distinguish among the three stages of layout
Demonstrate ability to: determine the physiology between font types and society
Demonstrate ability to: Identify typeface classes in printed material
Demonstrate ability to: Measure type
Demonstrate ability to: Identify type alignment
Demonstrate ability to: read and mark proof copy

Remediation:

Review with teacher assistance
Individual tutoring
Peer tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material

- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
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- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner
Follow all rules and policies outlined in class

Assessment:

- Worksheets
- Quizzes
- Pre/Posttests
- Time cards
- Rubrics
- Individual Projects
- Group projects
- Writing activities
- Check lists
- Oral Presentation
- Note books
- Study guides
- Portfolio
- Summaries
- Research Results
- Journals
- Essays
- Role-Play

Resources/Equipment:

Internet Resources:

www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

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Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

<u>Magazines:</u>

Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:

ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table

Digital Equipment:

Camera
Computers
Scanner

Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

Dafont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA300 - ELECTRONIC IMAGING

Unit Number: PA300

Dates: Spring 2016 **Hours:** 50.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to design a finished product incorporating the components of graphic elements and electronic imaging.

Tasks:

PA301 - Explain how to plan for a production of products and package material.

PA302 - Identify the various kinds of items that can be designed and produced using electronic publishing.

PA303 - Identify the principles of color theory.

PA304 - Illustrate the electronic production flow of print production.

PA305 - Demonstrate appropriate usage of software for word processing, graphic, scanning and page layout.

PA306 - Employ the use of a gauge to demonstrate ability to measure.

PA307 - Identify display (headline) type and body (text) type by their point sizes and styles.

PA308 - Identify the basic type styles and their uses.

PA309 - Demonstrate letter spacing, kerning and leading.

PA310 - Demonstrate the type arrangements: flush left, ragged right, flush right, ragged left, centered and justified.

PA311 - Use electronic dictionary and spell checker.

PA312 - Create a design/publication.

PA313 - Create a full page document using current industry standard page layout application.

PA314 - Create a PDF file created to industry specifications.

PA315 - Manipulate a vector image using a current industry standard software.

PA316 - Manipulate a bitmapped image using a current industry standard software.

PA317 - Identify the different file types and their uses.

PA318 - Integrate graphics from an existing file into a page layout.

PA319 - Define trap as it applies to a digitally using a page layout.

PA320 - RESERVED

PA321 - Identify color traps on a press sheet.

PA322 - Produce a series of computer sketches for layouts incorporating appropriate marks. (i.e. gutters, registration marks, fold lines, etc.)

PA323 - List types of press sheet impositions.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.
RANGE OF READING GRADES 9-10-11-12

Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Instructional Activities:

Knowledge:

Terms and definitions
Documents commonly produced through desktop publishing
Types of software used in desktop publishing
Major types of hardware used in desktop publishing
Digital camera basics
Scanning in grayscale, line art, and RGB modes
Types of scanners
Raster and vector images
Types of storage devices used in desktop publishing systems

High-end output devices used in desktop publishing
Types of desktop publishing proofs
Types of impositions
Digital trapping
Collect current event material related to digital printing
Compare and contrast the changes in staffing and training needs in a shop adopting CTP technology
Analyze effects of digital printing on the printer's and customer's view of cost, service, and competitiveness.
Design a page with appropriate margins, formatting, guides, trims, and folds*
Create a word-processed document*
Flow copy from a word processing program to page layout program according to job specifications
Use a digital camera to capture a digital image
Use a scanner to scan line art
Placed digital and scanned images in an page-layout document
Major types of DPP hardware
Types of computer systems used in DPP
Common operating systems used in DPP
Types of monitors used in DPP systems
Types of input devices used in DPP systems with their uses
Characteristics of types of storage devices used in DPP systems
Types of output devices used in DPP systems
Common features of low-end and high-end output devices used in DPP systems
PostScript and its importance to printing
Networking overview
Examine computer operating manual(s) for basic operating procedures
Complete a DPP system-specifications list
Determine system requirements for a specific software package
Determine basic costs of DPP systems
Start/Boot the computer
Types of software used in DPP systems
Factors to consider before purchasing DPP software
Characteristics of quality word-processing software
Characteristics of quality illustration software
Characteristics of quality image-editing software
Characteristics of quality preflight software
Characteristics of quality page-layout software
Basic page-layout software features
Basic page-layout software text-tool operations
Page-setup features
Paragraph-specification features
Type-specification features
Editing features
Problems encountered when using office software for print production
Evaluate a page-layout software package
Examine page-layout software manual for basic operations
Create word-processed document
Practice using publication-window features
Practice using page-specification features
Practice using paragraph- and type specification features and flow text
Create, edit, and move a headline
Place a file and then edit and move sentences within file paragraphs
Copy/paste, cut/paste, and move a paragraph
Create a letterhead

Skill:

Demonstrate the ability to: Create word-processed document
Demonstrate the ability to: Create, edit, and move a headline
Demonstrate the ability to: Place a file and then edit and move sentences within file paragraphs
Demonstrate the ability to: Copy/paste, cut/paste, and move a paragraph
Demonstrate the ability to: Create a letterhead
Demonstrate the ability to: Use the documents commonly produced through desktop publishing
Demonstrate the ability to: Use different types of software used in desktop publishing
Demonstrate the ability to: Use the major types of hardware used in desktop publishing
Demonstrate the ability to: Use digital camera basics
Demonstrate the ability to: Scan in grayscale, line art, and RGB modes
Demonstrate knowledge: On types of scanners
Demonstrate the ability to: Convert Raster and vector images
Demonstrate the ability to: Use storage devices used in desktop publishing systems
Demonstrate the ability to: Use high-end output devices used in desktop publishing
Demonstrate the ability to: Read types of desktop publishing proofs
Demonstrate the ability to: Acknowledge types of impositions
Demonstrate the ability to: Provide digital trapping
Ability to: Analyze effects of digital printing on the printer's and customer's view of cost, service, and competitiveness.
Ability to: Design a page with appropriate margins, formatting, guides, trims, and folds
Ability to: Create a word-processed document
Ability to: Flow copy from a word processing program to page layout program according to job specifications
Ability to: Use a digital camera to capture a digital image
Ability to: Use a scanner to scan line art
Ability to: Place digital and scanned images in an page-layout document
Ability to: Acknowledge major types of DPP hardware
Ability to: Acknowledge types of computer systems used in DPP
Ability to: Acknowledge common operating systems used in DPP
Ability to: Acknowledge types of monitors used in DPP systems
Ability to: Acknowledge types of input devices used in DPP systems with their uses
Demonstrate ability to: Know characteristics of types of storage devices used in DPP systems
Demonstrate ability to: Explain types of output devices used in DPP systems
Ability to: Understand common features of low-end and high-end output devices used in DPP systems
Ability to: Complete a DPP system-specifications list
Ability to: Determine system requirements for a specific software package
Ability to: Determine basic costs of DPP systems
Ability to: Start/Boot the computer
Ability to: Use types of software used in DPP systems
Ability to: Know factors to consider before purchasing DPP software
Demonstrate the ability to: Show characteristics of quality word-processing software
Demonstrate the ability to: Show characteristics of quality illustration software
Ability to: Use basic page-layout software features
Ability to: Use basic page-layout software text-tool operations
Ability to: Use page-setup features
Ability to: Use paragraph-specification features
Ability to: Use type-specification features
Ability to: Use editing features
Ability to: Trouble shoot problems encountered when using office software for print production

Remediation:

Review with teacher assistance
Individual tutoring
Peer Tutoring
Review checklist
Study guide

Enrichment:

Safety review poster
Research career
Interview someone in the field
Research education requirements for post-secondary

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing

- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner
Know and follow the established safety rules at all times
Use manufacture's direction when using equipment

Assessment:

Worksheets
Quizzes
Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:
www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2006).Orientation to Graphic Communications- Student Edition. Stillwater, OK: MAVCC.

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2013).Orientation to Graphic Communications - Teacher Edition. Stillwater, OK: MAVCC.

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2006).Press Operations, Binding & Finishing - Student Guide. Stillwater, OK: MAVCC.

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2006).Press Operations, Binding & Finishing - Teacher's Guide. Stillwater, OK: MAVCC.
Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2008).
Digital File Preparation & Output - Student Workbook. Stillwater, OK: MAVCC.

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Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2000).
Graphic Arts: Electronic Prepress and Publishing- Student Edition. Stillwater, OK: MAVCC.

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2000).
Graphic Arts: Electronic Prepress and Publishing- Teacher Edition. Stillwater, OK: MAVCC.

Olivo, C.T. & Olivo, T.P. (1985). Basic Vocational-Technical Mathematics (5th Ed.)Albany, NY: Delmar Publishing Inc.

Dennis, E.A. & Jenkins, J.D. (1983). Comprehensive Graphic Arts (2nd Ed.)Mission Hills, CA: Glencoe Publishing Company.

Adams, J.M. & Dolin, P.A. (2002). Printing Technology 5E.

Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

Magazines:

Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:

ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach.
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

Dafont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA400 - IMAGE ACQUISITION AND MANIPULATION

Unit Number: PA400

Dates: Spring 2016 **Hours:** 40.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to convert colors, evaluate and understand the importance of pixels and how it affects printing, along with acquiring files from various digital devices.

Tasks:

PA401 - Evaluate pixel resolution as it relates to output.

PA402 - Demonstrate the ability to acquire electronic images from various digital devices.

(i.e. scanner, digital camera, etc.).

PA403 - Convert digital image from RGB to CMYK for production.

PA404 - RESERVED

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Instructional Activities:

Knowledge:

Terms and definitions
Types of scanners
Common features of flatbed scanners
Types of software used in scanning
File formats for scanned images
PPI, DPI, and LPI
Factors that determine scanning resolution
Scanning resolutions and scanner settings
When to scan images as grayscale, line art, and RGB
Converting RGB scanned images to CMYK for print
Moiré patterns and how to avoid them
Scanning guidelines
Use of digital photography in digital prepress
Types of digital cameras
Resolution of digital cameras
Common features of image-editing software
Additive and subtractive primary colors
Functions of printing inks
Research copyright law in relation to scanned materials
Examine scanning hardware and software available in your classroom
Identify scanner and scan settings
Examine image-editing software manual for basic operations
Scan line art
Scan a continuous tone image
Use image-editing software to touch up and prepare line art scan for print
Use image-editing software to touch up and prepare continuous tone scan for print
Calibrate and assess a desktop scanner
Scan a continuous tone color original
Convert a continuous tone color scan to grayscale
Perform basic color correction
Use image-editing software to perform basic image cloning
Place scanned graphics/photos in page layout document
Scan text using OCR software
Capture an image with a digital camera and download to the computer
Complete the assigned project
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a note book
Self-evaluate a using a rubric
Complete mathematics assignments

Skill:

Demonstrate ability to: Use types of scanners
Acknowledge: Common features of flatbed scanners
Ability to: Use types of software used in scanning
Demonstrate ability to: create file formats for scanned images PPI, DPI, and LPI
Demonstrate: Understanding factors that determine scanning resolution
Ability to: Change scanning resolutions and scanner settings
Demonstrate: Knowledge on when to scan images as grayscale, line art, and RGB
Ability to: Convert RGB scanned images to CMYK for print

Ability to: Understand Moiré patterns and how to avoid them
Ability to: Follow scanning guidelines
Ability to: Use digital photography in digital prepress
Demonstrate knowledge of: Differences in types of digital cameras
Demonstrate: How to use resolution on digital cameras
Demonstrate ability to use: Common features of image-editing software
Research copyright law in relation to scanned materials
Examine scanning hardware and software available in your classroom
Identify scanner and scan settings
Examine image-editing software manual for basic operations
Scan line art
Scan a continuous tone image
Use image-editing software to touch up and prepare line art scan for print
Use image-editing software to touch up and prepare continuous tone scan for print
Calibrate and assess a desktop scanner
Perform basic color correction
Use image-editing software to perform basic image cloning
Place scanned graphics/photos in page layout document
Scan text using OCR software
Capture an image with a digital camera and download to the computer
Complete the assigned project
Complete invoices
Complete the Assigned project
Complete Unit 18 in Printing Technology 5E
Explain how estimates are determined for the length of time required to complete a task and how to use a unit/time standard form.
Explain how fixed costs are identified and determined in production costs
Outline the basic job estimating process
Discuss how a job work order is used to direct a job through scheduling and production control
Complete Unit 19 Printing Technology 5E
Define quality in terms of customer's content and requirement
Recall key terms including continuous quality improvement
Outline the motivation for customer defined quality management
Recognize the cost of failure
Define customer in terms external and internal clients
Outline a six step problem solving process
Name several effective team behaviors
Recall three team roles including leader, scribe, and timekeeper
Complete Unit 30 in Practical Problems in Mathematics for Graphic Arts
Apply the principles of determining the basic size thickness, and weight of a stock
Complete Unit 32 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring and cutting paper
Complete Unit 33 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring the most economical cut
Complete Unit 34 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of determining the number of sheets required for a job
Complete Unit 35 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of charging for cutting and handling stock
Complete Unit 37 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring the cost of paper stock

Remediation:

Review with teacher assistance
Individual tutoring
Peer Tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Review poster
Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage

- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Handle machine in a safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner

Assessment:

Worksheets
Quizzes
Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:

www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2006).Orientation to Graphic Communications- Student Edition. Stillwater, OK: MAVCC.

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Olivo, C.T. & Olivo, T.P. (1985). Basic Vocational-Technical Mathematics (5th Ed.)Albany, NY: Delmar Publishing Inc.

Dennis, E.A. & Jenkins, J.D. (1983). Comprehensive Graphic Arts (2nd Ed.)Mission Hills, CA: Glencoe Publishing Company.

Adams, J.M. & Dolin, P.A. (2002). Printing Technology 5E.

Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

Magazines:

Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:

ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA500 - PLATEMAKING

Unit Number: PA500

Dates: Spring 2016 **Hours:** 20.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to identify plates and chemicals used in stripping/mechanical. Student will also know and be able to create and manipulate plates that will be used for lithographic printing.

Tasks:

PA501 - Prepare plates (proofing for printing, process and store).

PA502 - Make additions, deletions and repairs to plate.

PA503 - Make plates for multi-color work.

PA504 - Output plates with control and printer's marks.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Connecting Anchor/Standard:

- Pennsylvania Core Standards for Mathematics Standard 2.0

Supporting Anchor/Standards:

NUMBERS AND OPERATIONS
Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

Terms and definitions
Identify types of plate ends
Types of offset plates
Plate exposing devices.
Types of pre-sensitized plates
Steps to expose and process plates
Automatic plate processors Complete the assigned project
Items to consider when selecting a plate material
Gumming of plates
Handling and storing plates
Do's and don'ts for properly handling plates and chemicals
Pin registration systems
Expose and develop a subtractive plate
Determine plate exposure using a step-off test
Expose a plate when using a screen tint
Make plates for a two-color job
Make additions, deletions, and repairs to an offset plate
Prepare a digital plate
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a note book
Self-evaluate a using a rubric
Complete mathematics assignments

Skill:

Demonstrate ability to: Identify types of plate ends
Demonstrate ability to: Use the right types of offset plates
Demonstrate ability to: Use plate exposing devices
Demonstrate ability to: Expose types of pre-sensitized plates
Demonstrate ability to: expose and process plates
Demonstrate ability to: Use automatic plate processors
Demonstrate ability to: Complete the assigned project
Demonstrate ability to: Recognize Items to consider when selecting a plate material
Demonstrate ability to: Gumm plates
Demonstrate ability to: Handle and store plates
Demonstrate knowledge: Do's and don'ts for properly handling plates and chemicals

Demonstrate ability to: Use pin registration systems
Expose and develop a subtractive plate
Determine plate exposure using a step-off test
Demonstrate ability to: Expose a plate when using a screen tint
Demonstrate ability to: Make plates for a two-color job
Demonstrate ability to: Make additions, deletions, and repairs to an offset plate
Demonstrate ability to: Prepare a digital plate
Demonstrate ability to: Complete the Assigned project
Complete Unit 18 in Printing Technology 5E
Explain how estimates are determined for the length of time required to complete a task and how to use a unit/time standard form.
Explain how fixed costs are identified and determined in production costs
Outline the basic job estimating process
Discuss how a job work order is used to direct a job through scheduling and production control
Complete Unit 19 Printing Technology 5E
Define quality in terms of customer's content and requirement
Recall key terms including continuous quality improvement
Outline the motivation for customer defined quality management
Recognize the cost of failure
Define customer in terms external and internal clients
Outline a six step problem solving process
Name several effective team behaviors
Recall three team roles including leader, scribe, and timekeeper
Complete Unit 30 in Practical Problems in Mathematics for Graphic Arts
Apply the principles of determining the basic size thickness, and weight of a stock
Complete Unit 32 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring and cutting paper
Complete Unit 33 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring the most economical cut
Complete Unit 34 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of determining the number of sheets required for a job
Complete Unit 35 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of charging for cutting and handling stock
Complete Unit 37 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring the cost of paper stock

Remediation:

Review with teacher assistance
Individual tutoring
Peer Tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Review poster
Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Handle machine in a safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner

Assessment:

Worksheets	Oral Presentation
Quizzes	Note books
Pre/Post tests	Study guides
Time cards	Portfolio
Rubrics	Summaries
Individual Projects	Research Results
Group projects	Journals
Writing activities	Essays
Check lists	Role-Play

Resources/Equipment:

Internet Resources:

www.gammag.co	www.printmag.com
www.americanprinter.com	http://macworld.zdnet.com/

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Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

Magazines:
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Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:
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ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach.
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:
DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA600 - PRESS

Unit Number: PA600

Dates: Spring 2016 **Hours:** 80.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to set up sheet and image control systems of an offset press and print a number of printing assignments.

Tasks:

PA601 - Determine grain direction of paper.

PA602 - Handle and jog paper stock (wire/felt, watermarks, and carbonless sequence).

PA603 - Mix and test ink for printing using ink color chart for mixing requirements.

PA604 - Mix fountain solutions using appropriate ratios.

PA605 - Make ready paper path for print production.

PA606 - Make ready inking systems.

PA607 - Make ready dampening systems.

PA608 - Print a single color job on various stock.

PA609 - Print a single color job two-sided.

PA610 - Compare different types of feed systems and explain their differences.

PA611 - Print different types of impositions.

PA612 - Define the organizations that set the printing industry standards.

PA613 - Print a multi-color job.

PA614 - Perform a simple, partial or full make ready on an offset press.

PA615 - Perform major clean up and basic maintenance.

PA616 - Install and set blanket on a press.

PA617 - Clean and secure duplicator for downtime.

PA618 - Evaluate print quality devices (i.e. star targets, color bars, etc.) and make needed adjustments to satisfy industry standards.

PA619 - Describe effective viewing conditions and equipment for monitoring color accuracy.

PA620 - Line up job according to customer proof.

PA621 - Mount plate on duplicator to industry standards.

PA622 - Pack blanket according to industry standards.

PA623 - Identify all safety devices on an offset press.

PA624 - Develop production notes in an appropriate format.

PA625 - Identify the press systems.

PA626 - Allocate colors to the printing units.

PA627 - Define the difference between spot colors and process colors.

PA628 - Set and record ink profile.

PA629 - Identify, troubleshoot and correct print defects.

PA630 - Analyze printed sheet and match to proof.

PA631 - Demonstrate knowledge of paper classifications, paper properties and paper concerns in the operation press applications.

PA632 - Make ready delivery systems.

PA633 - Identify the difference spot and flood varnish.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Connecting Anchor/Standard:

- Pennsylvania Core Standards for Mathematics Standard 2.0

Supporting Anchor/Standards:

NUMBERS AND OPERATIONS
Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

Terms and definitions
Essential safety precautions
Two reasons why efficient press operation is important
Offset press operator control functions
Typical operator control features and the press systems in which they are located
Arrange in order steps in the sequence of paper movement through a typical offset press
Ink key presetting technology
Compare control features of offset and digital presses
Set up the sheet control systems
Set up the image control systems
Operate an offset press from setup of systems through printed sheet delivery
Rule up a sheet
Perform a color wash on an offset press
Print envelopes
Change press from envelopes to letterhead
Print a two-color, two-sided job
Print a two-color hairline registration job using an additional color head
Print a work-and-turn
Print a work-and-tumble
Print halftones and screen tints
Print solids
Print a job using photo direct, electrostatic, and/or computer-to-plate masters on carbonless paper
Print a four-color process job
Perform perforation and scoring
Print a two-color job using tight registration
Print a two-color job using tight registration, 4-up
Match terms and definitions
Advantages of a routine, thorough preventive maintenance program
Three areas of work in a preventive maintenance program
Preventive maintenance schedules
Requirements for a preventive maintenance schedule in chart form
Preventive maintenance procedures for daily cleanup
Preventive maintenance procedures for weekly cleanup
Preventive maintenance procedures for monthly cleanup
Procedures for daily, weekly, and monthly lubrication

Daily and weekly adjustment procedures
Monthly adjustment requirements
Steps in making an ink form roller check
Ink stripe configurations
Troubleshooting techniques
Categories of press troubles
Types of emulsification
Technique for avoiding emulsification
Conditions that create ink drying problems
Common ink problems on the press
Process color ink analysis
Printing industry standards
Guidelines for evaluating good print quality
Print quality problems and their causes
Complete the assigned project
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a note book
Self-evaluate a using a rubric
Complete mathematics assignments

Skill:

Terms and definitions
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Print a work-and-tumble
Print halftones and screen tints
Print solids
Print a job using photo direct, electrostatic, and/or computer-to-plate masters on carbonless paper
Print a four-color process job
Perform perforation and scoring
Print a two-color job using tight registration
Print a two-color job using tight registration, 4-up
Match terms and definitions
Advantages of a routine, thorough preventive maintenance program
Three areas of work in a preventive maintenance program
Preventive maintenance schedules
Requirements for a preventive maintenance schedule in chart form
Preventive maintenance procedures for daily cleanup
Preventive maintenance procedures for weekly cleanup
Preventive maintenance procedures for monthly cleanup

Procedures for daily, weekly, and monthly lubrication
Daily and weekly adjustment procedures
Monthly adjustment requirements
Steps in making an ink form roller check
Ink stripe configurations
Troubleshooting techniques
Categories of press troubles
Types of emulsification
Technique for avoiding emulsification
Conditions that create ink drying problems
Common ink problems on the press
Process color ink analysis
Printing industry standards
Guidelines for evaluating good print quality
Print quality problems and their causes
Complete the Assigned project
Complete Unit 18 in Printing Technology 5E
Explain how estimates are determined for the length of time required to complete a task and how to use a unit/time standard form.
Explain how fixed costs are identified and determined in production costs
Outline the basic job estimating process
Discuss how a job work order is used to direct a job through scheduling and production control
Complete Unit 19 Printing Technology 5E
Define quality in terms of customer's content and requirement
Recall key terms including continuous quality improvement
Outline the motivation for customer defined quality management
Recognize the cost of failure
Define customer in terms external and internal clients
Outline a six step problem solving process
Name several effective team behaviors
Recall three team roles including leader, scribe, and timekeeper
Complete Unit 30 in Practical Problems in Mathematics for Graphic Arts
Apply the principles of determining the basic size thickness, and weight of a stock
Complete Unit 32 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring and cutting paper
Complete Unit 33 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring the most economical cut
Complete Unit 34 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of determining the number of sheets required for a job
Complete Unit 35 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of charging for cutting and handling stock
Complete Unit 37 in Practical Problems in Mathematics for Graphic Arts.
Apply the principles of figuring the cost of paper stock

Remediation:

Review with teacher assistance
Individual tutoring
Peer Tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Review poster
Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
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- Cue for Oral Response
- De-Escalation Opportunities
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- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage

- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Handle machine in a safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner

Assessment:

Worksheets
Quizzes
Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:
www.gammag.co
www.americanprinter.com
www.printmag.com
www://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2006).Orientation to Graphic Communications- Student Edition. Stillwater, OK: MAVCC.

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Adams, J.M. & Dolin, P.A. (2002). Printing Technology 5E.
Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

Magazines:

Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:

ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mounting Machine
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: PA700 - BINDERY

Unit Number: PA700

Dates: Spring 2016 **Hours:** 40.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to trouble shoot and complete maintenance on binding and finishing equipment and calculate savings by bindery operators. The students will demonstrate competencies by completing tasks and assignments sheets.

Tasks:

PA701 - Use folding equipment to produce various folding operations.

PA702 - Perform saddle stitching and perfect binding.

PA703 - Use packaging and shrink wrapping equipment.

PA704 - Properly handle printed substrates.

PA705 - Explain the importance of when stock squaring is required.

PA706 - Perform required maintenance on paper cutter.

PA707 - Demonstrate the operation of a collation machine.

PA708 - Setting the staple position.

PA709 - Set up stitcher to customer specifications.

PA710 - Set up for a perfing job and check with proof.

PA711 - Set up for a numbering job.

PA712 - Demonstrate basic paper counting techniques, such as measurement by ream marker, weight, and caliper.

PA713 - Set up folding equipment to slit, perforate, and score.

PA714 - Demonstrate how to set up and properly use programmable cutters.

PA715 - Perform required maintenance on a folder.

PA716 - Set up and use a paper drill to produce a drilled job.

PA717 - Set up folder according to customer specifications.

PA718 - Set up perfect binder according to job specifications.

PA719 - Make needed adjustments to maintain fold specifications.

PA720 - Properly pad notepads.

L721 - Perform setup procedures for foil stamping and embossing.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Connecting Anchor/Standard:

- Pennsylvania Core Standards for Mathematics Standard 2.0

Supporting Anchor/Standards:

NUMBERS AND OPERATIONS
Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

Terms and definitions
Binding techniques
Major paper folding styles
Processes associated with finishing activities
Operational and safety parts of a paper cutter
Count paper using various techniques
Pad 20-pound stock
Pad carbonless paper
Drill paper stock for a 3-ring binder
Fold paper using a folding machine
Hand fold, collate, and staple a booklet
Collate multi-page printing job using a collating machine
Score a job Complete the assigned project
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a note book
Self-evaluate a using a rubric
Complete mathematics assignments

Skill:

Demonstrate: Binding techniques
Demonstrate: Major paper folding styles
Demonstrate: The processes associated with finishing activities
Demonstrate: The operational and safety parts of a paper cutter
Ability to: Count paper using various techniques
Ability to: Pad 20-pound stock
Ability to: Pad carbonless paper
Ability to: Drill paper stock for a 3-ring binder
Ability to: Fold paper using a folding machine
Ability to: Hand fold, collate, and staple a booklet
Ability to: Collate multi-page printing job using a collating machine
Ability to: Score a job Complete the assigned project
Complete invoices
Complete the Assigned project
Complete Unit 18 in Printing Technology 5E
Explain how estimates are determined for the length of time required to complete a task and how to use a unit/time standard form.
Explain how fixed costs are identified and determined in production costs
Outline the basic job estimating process
Discuss how a job work order is used to direct a job through scheduling and production control
Complete Unit 19 Printing Technology 5E
Define quality in terms of customer's content and requirement
Recall key terms including continuous quality improvement
Outline the motivation for customer defined quality management
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Complete Unit 30 in Practical Problems in Mathematics for Graphic Arts
Apply the principles of determining the basic size thickness, and weight of a stock
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Apply the principles of figuring and cutting paper
Complete Unit 33 in Practical Problems in Mathematics for Graphic Arts.

Apply the principles of figuring the most economical cut
Complete Unit 34 in Practical Problems in Mathematics for Graphic Arts.
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Remediation:

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Individual tutoring
Peer Tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Review poster
Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
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- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
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- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
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- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
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- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects

- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

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Handle machine in a safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner

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Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:

www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

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<u>Magazines:</u>
Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:

ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach.
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table

Digital Equipment:

Camera
Computers
Scanner

Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: L800 - SAFETY

Unit Number: L800

Dates: Spring 2016 **Hours:** 170.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to identify safety procedures and areas of concern regarding printing and finishing equipment.

Tasks:

L801 - Identify Locations of fire safety equipment and first aid (kits).

L802 - Identify protective safety equipment where needed.

L803 - Follow proper safety procedures when operating equipment.

L804 - Follow approved shop dress code for safety operation.

L805 - Pass general lab safety test.

L806 - Demonstrate safe use of all equipment.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.
RANGE OF READING GRADES 9-10-11-12

Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Instructional Activities:

Knowledge:

Steps in maintaining a safe and orderly shop
Identify Hazardous Materials Identification System (HMIS) labels
Purposes of a material safety data sheet
Kinds of safety hazards
Things OSHA expects of an employer
Things OSHA expects of an employee
Colors of the safety color code
Characteristics of lockout/tagout
Components of the fire triangle
Classes of fires
Types of fire extinguishers and the classes of fire they are designed to extinguish
Fire extinguisher symbols
General guidelines for first aid emergencies
Blood borne pathogens and special first aid precautions
Lifting and carrying items safely
Complete a student safety pledge form
Survey the shop and identify correct safety practices
Interpret a material safety data sheet
Draw a floor plan and locate safety equipment in your shop
Operate a fire extinguisher
Lift a heavy object properly
Approved methods of disposing of graphic communications waste materials
Toxic chemical safety rules
Personal protective equipment which might be required in a print shop
Terms and definitions
Proper safety rules to be practiced in the shop
Steps in maintaining a safe and orderly shop
Complete the assigned project
Participate in classroom discussions and lecture
Research trade information and graphic communication on the Internet
Complete assigned worksheets, study guides, and workbook pages
Read assigned textbook pages
Students will complete time cards
Maintain a note book
Self-evaluate a using a rubric

Skill:

Demonstrate ability to: Explain the components of the fire triangle
Demonstrate ability to: Explain classes of fires
Demonstrate ability to: Use fire extinguishers and know the classes of fire they are designed to extinguish
Demonstrate ability to: Understand fire extinguisher symbols
Demonstrate ability to: General guidelines for first aid emergencies
Demonstrate ability to: Distinguish blood borne pathogens and special first aid precautions
Demonstrate ability to: Lift and carry items safely
Demonstrate ability to: Survey the shop and identify correct safety practices
Demonstrate ability to: Interpret a material safety data sheet
Demonstrate ability to: Draw a floor plan and locate safety equipment in your shop
Demonstrate ability to: Operate a fire extinguisher

Demonstrate ability to: Lift a heavy object properly
Demonstrate ability to: Identify Hazardous Materials Identification System (HMIS) labels
Demonstrate ability to: Determine kinds of safety hazards
Colors of the safety color code
Demonstrate ability to: Understand the steps in maintaining a safe and orderly shop
Complete the assigned project
Assign textbook reading
Lecture to demonstrate the process that students will be learning
Assign worksheets to be completed
Present and review grading rubrics for projects
Offer one-on-one instruction to students in need of specific help
Observe student work as the student is learning
Coordinate student learning and work activities.
Lecture to explain the important content that the student will be learning.

Remediation:

Review with teacher assistance
Individual tutoring
Peer Tutoring
Review checklist
Study guide

Enrichment:

Safety review poster
Research career
Interview someone in the field
Research education requirements for post-secondary

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)
- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)

- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner
Pass safety test with 100%

Assessment:

Worksheets
Quizzes
Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio

Resources/Equipment:

Internet Resources:

www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

Multistate Academic and Vocational Curriculum Consortium Inc. (MAVCC). (2006).Orientation to Graphic Communications- Student Edition. Stillwater, OK: MAVCC.

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Adams, J.M. & Dolin, P.A. (2002). Printing Technology 5E.
Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

Magazines:

Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:

ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach.
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator

20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies

Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:

DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: L900 - SIGN COMMUNICATION PRODUCTION

Unit Number: L900

Dates: Spring 2016 **Hours:** 0.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to create, fabricate, and price different types of signage using a variety of materials.

Tasks:

L901 - Prepare vector artwork.

L902 - Demonstrate proper use of vinyl cutting software.

L903 - Load, plot, weed, and mask vinyl.

L904 - Create and fabricate different types of signage i.e.; banners, wood, aluminum, glass, sandblast, etc.

L905 - Explain the use of different types of vinyl.

L906 - Price a signage job per customer specs.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Connecting Anchor/Standard:

- Pennsylvania Core Standards for Mathematics Standard 2.0

Supporting Anchor/Standards:

NUMBERS AND OPERATIONS
Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

Skill:

Remediation:

Review with teacher assistance
Individual tutoring
Peer tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
- Drill and Practice (Repetition of Material)
- Directions/Comprehension Check (frequent checks for understanding)

- Preferential Seating
- Chunking of Assignments/Material
- Extended Time (assignments and/or testing)
- Directions and/or Tests Read Aloud
- Adapted Tests and/or Assignments
- Small Group Instruction
- Teacher Modeling
- Use of Daily Planner/Assignment Book (monitor use of)
- Provide Visual Model to Accompany Verbal Directions (Written/Oral Directions)
- Use of Computer (Access to)
- Positive Reinforcement
- Have Student Repeat Directions
- Wait Time
- Access to School Counselor
- Copy of Teacher/Student Notes/Skeleton Notes
- No Penalization for Spelling
- Use of Highlighter/Highlighted Text
- Positive Reinforcement
- Provide Frequent Feedback
- Provide Frequent Breaks
- Variety of Assessment Methods
- Regular Notebook Check
- Use of Assistive Device (i.e. notepad, laptop, etc.)
- Highly Structured Classroom
- Syllabus for Major Projects
- Limited, Short Directions
- Grading Rubric
- Communication Regarding Behavior & Consequences (PBS)
- Clear Language for Directions
- Use of Multisensory Approach
- Provide Opportunities to Retest
- Frequent Review Sessions
- Use a variety of Modalities when Introducing Skills/Concepts
- Provide Editing Assistance
- Copies of Text for Home
- Cue for Oral Response
- De-Escalation Opportunities
- Daily Classwork Check
- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions
- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
- Assistance with Bubble Sheets
- Encouragement to Participate in Positive Leadership Roles
- Student Self-Evaluation for Behavior
- Exempt from reading Aloud in Front of Peers

Safety:

Student must:
Handle material in safe and work like manner
Use protective clothing and equipment
Use hand tools in a safe manner
Follow all rules and policies outlined in class

Assessment:

Worksheets
Quizzes
Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:

www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

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Vermeersch, L. & Southwick, C. (1983). Practical Problems in Mathematics for Graphic Arts. Albany, NY: Delmar Thompson Learning.

Magazines:
Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:
ProPrint T-Head Offset/duplicator printers
ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach.
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks:
DaFont.com

Monroe Career & Technical Institute
Course: Graphic Communications

Unit Name: L1000 - SCREEN PRINTING

Unit Number: L1000

Dates: Spring 2016 **Hours:** 0.00

Last Edited By: Graphic Communications (05-02-2016)

Unit Description / Objectives:

Student will know and be able to prepare, clean, and print using screens, use embroidery software and machine, and set-up, clean and use an airbrush.

Tasks:

L1001 - Prepare positive art separation for screen printing according to customer's needs.

L1002 - Coat screens.

L1003 - Prep and clean screens.

L1004 - Complete breakdown of screen via power wash.

L1005 - Print a one, two, three, or four color job.

L1006 - Expose and register screens for multiple colors.

L1007 - Demonstrate the proper use of a heat press.

L1008 - Price a screen printing job per customer specs.

L1009 - Show knowledge of embroidery software and the use of an embroidery machine.

L1010 - Thread embroidery head.

L1011 - Embroider a one color piece of apparel.

L1012 - Embroider a multi-color piece of apparel.

L1013 - Set-up Air brush for t-shirt art/tattoo art/signage.

L1014 - Show knowledge of airbrush parts and inks.

L1015 - Complete cleaning and break down of airbrush.

L1016 - Demonstrate use of an airbrush.

Standards / Assessment Anchors

Focus Anchor/Standard #1:

- Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5

Supporting Anchor/Standards:

KEY IDEAS/DETAILS GRADES 9-10-11-12
Standard CC.3.5.9-10.A / Standard CC.3.5.11-12A Cite specific textual evidence, etc.

Standard CC.3.5.9-10 B / Standard CC.3.5.11-12 B Determine the central ideas or conclusions of a text; etc.

Standard CC.3.5.9-10.C / Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc.

CRAFT & STRUCTURE GRADES 9-10-11-12
Standard CC.3.5.9-10. D / Standard CC.3.5.11-12.D Determine the meaning of symbols, key terms, and other domain specific words.

Standard CC.3.5.9-10.E / Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc.

Standard CC.3.5.9-10.F / Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure...and Analyze the structure of the relationships among concepts in a text.

INTEGRATE KNOWLEDGE & IDEAS GRADES 9-10
Standard CC.3.5.9-10.G Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).

Standard CC.3.5.9-10. H Assess the reasoning in a text to support the author's claim for solving a technical problem.

Standard CC.3.5.9-10. I Compare and contrast findings presented in a text to those from other sources, etc.

INTEGRATE KNOWLEDGE & IDEAS GRADES 11-12
Standard CC.3.5.11-12. G Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.

Standard CC.3.5.11-12. H Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.

Standard CC.3.5.11-12. I Synthesize information from a range of sources into a coherent understanding.

RANGE OF READING GRADES 9-10-11-12
Standard CC.3.5.9-10.J / Standard CC.3.5.11-12.J By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.

Focus Anchor/Standard #2:

- Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6

Supporting Anchor/Standards:

TEXT TYPES AND PURPOSE GRADES 9-10-11-12
Standard CC.3.6.9-10.A Standard CC.3.6.11-12.A Write arguments focused on discipline specific content.

Standard CC.3.6.9-10.B Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.

PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10-11-12
Standard CC.3.6.9-10.C Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.

Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Standard CC.3.6.9-10.E Standard CC.3.6.11-12.E. Use technology, including the internet, to produce, publish, and update individual or shared writing products.

RESEARCH GRADES 9-10-11-12
Standard CC.3.6.9-10.F Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem.

Standard CC.3.6.9-10.G. Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation.

Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

RANGE OF WRITING GRADES 9-10-11-12
Standard CC.3.5.9-10.I & Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.

Connecting Anchor/Standard:

- Connecting Standard Pennsylvania Core Standards for Mathematics Standard 2.0

Supporting Anchor/Standards:

NUMBERS AND OPERATIONS
Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers

Instructional Activities:

Knowledge:

Skill:

Remediation:

Review with teacher assistance
Individual tutoring
Peer tutoring
Review checklist
Study guide
Peer Mentoring
Additional time

Enrichment:

Research career
Interview someone in the field
Special Project Assignment
Live Work
Professional Samples Collection
Shop Management Role

Special Adaptations:

- Study Guide
- Use of Calculator
- Graphic Organizer
- Taking Tests in Alternate Setting (or if requested)
- Verbal/Gestural Redirection (prompts to remain on task)
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- Encourage Student to Check Work Before Turning In
- Opportunities for Repeated Practice of MATH Skills
- Provide repetition During Initial Instruction
- Allow Pre-read of Questions Before Reading Written Passage
- Provide Verbal and Written Directions

- Multiplication Chart
- All Vocabulary to be Defined Before Testing
- Testing - Allow Dictation of Lengthy Answers
- Time out
- Monitor Speed/Accuracy in which Student Completes Assignment
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- Student Self-Evaluation for Behavior
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Pre/Post tests
Time cards
Rubrics
Individual Projects
Group projects
Writing activities
Check lists
Oral Presentation
Note books
Study guides
Portfolio
Summaries
Research Results
Journals
Essays
Role-Play

Resources/Equipment:

Internet Resources:

www.gammag.co
www.americanprinter.com
www.printmag.com
http://macworld.zdnet.com/

Press Operations, Binding/Finishing MAVCC 2006

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Magazines:
Graphic Arts
Dynamic Graphics Create Magazine
Printing News
The Big Picture

Equipment:
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ProPrint Offset/duplicator printers
ABdick Offset/duplicator printers
Xerox Color copier
Xante Black & White Printer
Xante Plate Maker 5
Epson 44"Large Format Color Plotter
Morgan Folding, Scoring, Perforating Machine
GBC 2-Roll, 44" Hot Laminator and Mount. Mach.
Saddle stitch Machine
Multi-Die Book Binding Machine
Digital Off-set Press
24" Vinyl Cutter
24" Hydraulic Paper Cutter
Hydraulic 3-Hole Punch Machine
4-Color Screen Printing Machine
Screen Printing Flash Equipment
Screen Printing 30" Dryer
Screen Printing backlit Washout Sink
Button Maker
Imprinter
44" Cold Laminator
20" Poster Maker
Heat Press Transfer Machine
Xcaliber Board Trimmer
40" Rotary Trimmer
Air Brush Equipment
Padding Equipment
Bates Numbering System
Hot Foil Stamping Machine
Exposure Unit
Light Table
Digital Equipment:
Camera
Computers
Scanner
Painting Supplies
Paper Supplies
Drawing Supplies
Measuring Supplies
Finishing Supplies
Printing Supplies
Screen Printing Supplies
Sign Making Supplies
Off-Set Supplies
Copier Supplies
Printer Supplies
Prepping and Washing Supplies
Washout Sink
Folding machines
Hydraulic Paper cutters
Padding station
Exposing unit
3-hole punch machine
Assorted Papers
Graphic instruments: pens, scissors, rulers, etc.
Computer
Light table

Hyperlinks: DaFont.com