

TIES 2002

Printing A Scratch Pad

Electronic Pre Press

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Electronic Pre Press

Summary

Technology has changed the traditional way in which the printing industry prepares printing plates. Text and images can now be created, edited and output directly from the computer. Whereas this advance speeds up the process, it also creates a new set of potential problems. Assignments given in the practice of electronic pre press can stress to students the importance of proofing, quality control, file management and output troubleshooting.

Big Picture

Using printing projects that the students can take home, for their own use, or to give away as gifts, make the learning activity appealing. Each step of production builds upon the one previous to the completion of the project.

Preparation for the Unit

Computers must have the most updated software loaded. Handouts must be copied and available. Evaluations should be presented in advance, with parameters established and clear.

Overview

On the following pages you will see the projects broken down into assignments. This Authentic Learning Task (ALT) can be used separately or together.

Electronic Pre Press Curriculum Unit Summary

Applications	Page Formatting	Proofing	Output
<p>ALT 1 - A tool for everything Using worksheet of text and images. Students will use computer applications to correctly input the information</p>	<p>ALT 1 – Bringing Files “in” Using specification of the project, assemble the different file types together.</p>	<p>ALT 1 – Check. . .Check again Using specification of the project, check and double check image on monitor. Including size, spelling, file type, element position.</p>	<p>ALT 1 – Print a Film Negative Using computer file and imagesetter output a film negative and dylux proof image.</p>
<p>ALT 2 – Monitor Proofing Using worksheet of text and images. Students check correctness of input images</p>	<p>ALT 2 – Monitor Proofing Using specification of the project. Students check correctness of assembled images</p>	<p>ALT 2 – Output paper proof Using specification of the project, output a paper proof using a laserprinter to insure quality control.</p>	<p>ALT 2 – Print a plate Using computer file and imagesetter output a plate and inspect for quality control.</p>
<p>ALT 3 – Teamwork Using worksheet of text and images. Students check correctness of a team member</p>	<p>ALT 3 – Teamwork Using specification of the project. Students check correctness of a team member</p>	<p>ALT 3 – Teamwork Using specification of the project. Students check correctness of a team member</p>	<p>ALT 3 – Compare Images Compare the image quality of the output film and the out plate and record differences.</p>

Transfer Activities

After completing a simple one-color scratch pad, this same image came be color separated and output following the same model. Projects can be expanded and enhanced to various degrees of difficulty.

Section One: Applications

ALT 1 - A tool for everything

Summary

Students will be given images to input using the Macintosh Computer. They will need to determine the type of input application to use. They will also be evaluated on the correctness of their efforts.

Competencies

1.) Basic Computer Operation 2.) Image Identification 3.) Keyboarding Skills 4.) Application Navigation

Time

2 hours

Materials

Input Images (text, illustrations, photographs) Macintosh Computers, evaluation sheets

Instructions

Explain to students that customers provide designers with images and ideas and the designer must correctly “plug-in” the information digitally. The first assignment will be practice the next assignment will be a live job of their making. Students will be given an image then to input.

Evaluation/Assessment of Student’s Competency

100% correctness is required for competency to be awarded in this area. Students can be offered the opportunity to redo the assignment.

Closure

Discuss the projects and have students brainstorm for their own assignments. Clean-up lab and return materials to original condition. Save files to disk and clean screens

Section One: Applications

ALT 2 – Monitor Proofing

Summary

This assignment reinforces the importance of proofing.

Competencies

1.) Proofing 2.) Application Editing

Time

15 minutes

Materials

On-screen image, original specification of project

Instructions

Every time an image is input, it must be monitor proofed prior to output. This is a cost saving activity. Students will be instructed to monitor proof and note this activity on the job jacket of the project being created.

Evaluation/Assessment of Student's Competency

100% correctness is required

Closure

After correction files must be saved. Repetition about proofing will insure projects are out put correctly.

Section One: Applications

ALT 3 - Teamwork

Summary

During the Operation of the computer each step is recorded step by step. This operation is open to review and discussion. Improvement comes from discussion and consideration that there are more ways than one to complete the assignment correctly and efficiently.

Competencies

1.) Interpersonal Communications 2.) Teamwork

Time

15 minutes

Materials

Job Jacket, Project Specification

Instructions

Students in teams of two and three are to critique performance of applications and application set-up for the input of assignments. They are instructed to provide alternatives and consideration in sensitive ways.

Evaluation/Assessment of Student's Competency

This requirement will be considered a pass or fail assignment. Documentation of the activity can be placed on the daily job sheet, with the results.

Closure

Group discussions about the use of teamwork and empathy can be productive to future employment

Section Two: Page Formatting

ALT 1 – Bringing files “in”

Summary

Files must be brought into a page-formatting program, appropriate to that program. File must be of the correct extension and must be scanned or downloaded for the size they are to be output. This operation is open to review and discussion. Improvement comes from discussion and consideration that there are more ways than one to complete the assignment correctly and efficiently.

Competencies

1.) Computer skills, 2.) Attention to detail 3.) Project output limitations

Time

10 minutes

Materials

Macintosh computer, scanned/downloaded files, job jacket, layout

Instructions

Students in teams of two and three are to critique performance of file in-put and element orientation of assignments. They are instructed to provide alternatives and consideration in sensitive ways.

Evaluation/Assessment of Student’s Competency

This part of the project is open to consideration when evaluating. A pre-approved layout will be used as the benchmark to determine if the best possible positioning of elements occurred

Closure

Public viewing of how different projects were page formatted can provide alternative, creative ideas for future projects. Group discussions about the use of teamwork and empathy can be productive to future employment

Section Two: Page Formatting

ALT 2 – Monitor Proofing

Summary

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Competencies

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Materials

On-screen image, original specification of project

Instructions

Every time an image is input, it must be monitor proofed prior to output. This is a cost saving activity. Students will be instructed to monitor proof and note this activity on the job jacket of the project being created.

Evaluation/Assessment of Student's Competency

100% correctness is required

Closure

After correction files must be saved. Repetition about proofing will insure projects are out put correctly.

Section Two: Page Formatting

ALT 3 – Teamwork

Summary

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Instructions

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Evaluation/Assessment of Student's Competency

This requirement will be considered a pass or fail assignment. Documentation of the activity can be placed on the daily job sheet, with the results.

Closure

Group discussions about the use of teamwork and empathy can be productive to future employment

Section Three: Proofing

ALT 1 – Check . . .check again

Summary

This assignment reinforces the importance of proofing. Proofing is an ongoing process, which requires constant vigilance. To require proofing at several stages of production, student will learn good habits for the workforce.

Competencies

1.) Proofing 2.) Application Editing 3.) Customer interaction

Time

As needed approx. 10 minutes

Materials

Project specification sheet, Customer approval sign-off sheet

Instructions

Student will work on project using the customer specification sheet to provide direction. Upon feeling as though all specifications have been followed, students will interact with the customer, arranging a meeting in which the specification sheet and the design are compared and the customer is asked to either sign the approval sheet or provide direction on correcting the project.

Evaluation/Assessment of Student's Competency

Signed customer approval form; nothing less will be accepted

Closure

During the process, students can feel rejected by their design not being accepted. After approval positive reinforcement tactics can be used to reinforce that 100% correctness in design is the only acceptable outcome.

Section Three: Proofing

ALT 2 – Output paper proof

Summary

This assignment reinforces the importance of proofing.

Competencies

1.) Proofing 2.) Set-up/Operation of output device

Time

10 minutes

Materials

On-paper design, original specification of project

Instructions

Every time an image is input, it must be proofed on paper prior to output on film or plates. This is a cost saving activity. Students will be instructed to output paper proofs and note this activity on the job jacket of the project being created.

Evaluation/Assessment of Student's Competency

100% correctness is required

Closure

After correction files must be saved. Repetition about proofing will insure projects are out put correctly.

Section Three: Proofing

ALT 3 – Teamwork

Summary

This assignment reinforces the importance of proofing.

Competencies

1.) Proofing 2.) Application Editing 3.) Team development 4.) Set-up/Operation of output device

Time

15 minutes

Materials

On-screen image, original specification of project

Instructions

Students in teams of two and three are to critique performance of output paper proofs. They are instructed to provide corrections and interpretations in sensitive ways.

Evaluation/Assessment of Student's Competency

100% correctness is required

Closure

After correction files must be saved. Repetition about proofing will insure projects are out put correctly.

Section Four: Output

ALT 1 – Print a film Negative

Summary

Students are to Output a film negative correctly insuring all specifications have been met.

Competencies

1.) Set-up Output device, 2.) Maintain Processor, 3.) Use of Advanced Computer applications

Time

20 min.

Materials

Computer files, Imagesetter, Film, Chemistry

Instructions

Students will electronically send files from the computer of origin to the RIP station and finally to the imagesetter where the laser will expose the film. The students are to follow the procedures and monitor the progress to insure quality control exist during the entire process.

Evaluation/Assessment of Student's Competency

Film exposed to a solid step 3 or better and within the parameters of the approved design.

Closure

As with all the previous steps a review of procedures helps to reinforce the process and provides opportunity to improve in the future.

Section Four: Output

ALT 2 – Print a plate

Summary

Students are to Output a printing plate correctly insuring all specifications have been met.

Competencies

1.) Set-up Output device, 2.) Maintain Processor, 3.) Use of Advanced Computer applications

Time

20 min.

Materials

Computer files, Imagesetter, Plates, Chemistry

Instructions

Students will electronically send files from the computer of origin to the RIP station and finally to the imagesetter where the laser will expose the plate. The students are to follow the procedures and monitor the progress to insure quality control exist during the entire process.

Evaluation/Assessment of Student's Competency

Plates exposed to a correct density or better and within the parameters of the approved design. Plates must also be positives of the image, which will require a “double check of the imagesetters controls to insure they are correct.

Closure

As with all the previous steps a review of procedures helps to reinforce the process and provides opportunity to improve in the future.

Section Four: Output

ALT 3 – Compare Images

Summary

Student will compare Dylux proof with original design idea

Competencies

1.) Proofing 2.) Customer interaction

Time

10 min.

Materials

Plate/Film and original design and specifications of project

Instructions

Students will examine original concept art/design or specifications and determine if the final output is correct. This can be done arbitrarily by the student unless a customer approval signature has been secured. In the event of a signature; the approved art must be used and the comparison must be exact.

Evaluation/Assessment of Student's Competency

100% must be secured before production of the project can continue

Closure

Final review of the project will rest with the customer. This concept will be discussed and reinforced.

Transfer Activity

Creating a Scratch Pad Using Digital Imaging

Summary: The student will design, secure approval, electronically create and output film and/or plate for print production a scratch pad for an actual customer

Competencies: Layout and Design, Typography, Proofing, Computer Operation, Imagesetter Operation/Maintenance, Processor Operation

Time: Approx 3 days of lab

Materials: Specification sheet, Tracing Paper, Type spec sheet, Computer, Imagesetter, Processor

Instructions:

- 1.) Review Specifications for project
- 2.) Prepare Layout for Customer approval
- 3.) Secure customer approval
- 4.) Prepare Computer "Camera Ready" Images
- 5.) Output Paper Proof and secure customer approval
- 6.) Prepare processor for output
- 7.) Out film/plates

Evaluation: Customer must approve design. Considering design may be reworked until correct the evaluation must be on the process. Each step of production will be evaluated on time spent and unique quality of design.

Closure: Each Step of production will allow for a team review and discussion. As student evaluate each other's work, opportunities for ideas and improvement will exist.

Resources

- 1.) Mid-America Vocational Curriculum, 2000 Graphic Arts Layout & Design Prepress
- 2.) The Practice of Printing, Ralph Polk, 1987
- 3.) Operation Manuals on the use of Adobe Photoshop, Adobe PageMaker and Microsoft Word
- 4.) Printing Industries of America Competency list based on certification 2000 – 2004
- 5.) Printing Industries of America Materials for customer approval and job sheets outlining specifications
- 6.) Type Specification list from GATF catalog