



# GRAPHIC COMMUNICATIONS

## Digital File Preparation - Quark

This course is designed to provide students with theory and hands-on experiences relative to the electronic prepress area of the printing industry. The skills of the printing industry will be built upon "live work" experiences in the areas of type, page layout, image capture, and illustration. The curriculum is aligned with the "Digital File Preparation" PrintED competencies.

USOE  
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# DIGITAL FILE PREPARATION - Quark

Levels: Grades 11-12  
Units of Credit: Minimum 0.5 credit  
CIP Code: 10.0304  
Prerequisite: Intermediate Graphic Communications

## COURSE DESCRIPTION

Students will be able to use technical knowledge and skills for Digital File Preparation – QuarkXPress

## CORE STANDARDS, OBJECTIVES AND INDICATORS

**STANDARD 100304-01**      **Student will have an understanding of the introduction to QuarkXPress.**

### **OBJECTIVES**

100304-0101 Identify the images.  
100304-0102 Identify the continuous tone/halftone images.  
100304-0103 Identify the basic process color principles.  
100304-0104 Identify the kinds of four color printing.  
100304-0105 Demonstrate keyboard typing proficiency.

**STANDARD 100304-02**      **Students will be able to demonstrate basic mathematical concepts.**

### **OBJECTIVES**

100304-0201 Measure linear dimensions in inches and fractions of inches.  
100304-0202 Measure linear dimensions in millimeters.  
100304-0203 Measure copy, text, and leading in points.  
100304-0204 Identify digital image measurement concepts (resolution, file size, screens, tints).  
100304-0205 Measure copy for reduction and enlargement to determine percentages.

**STANDARD 100304-03**      **Students will be able to understand and apply measurement skills.**

### **OBJECTIVES**

100304-0301 Solve addition of whole number, fraction, and decimal problems.  
100304-0302 Solve subtraction of whole number, fraction, and decimal problems.  
100304-0303 Solve multiplication of whole number, fraction, and decimal problems.  
100304-0304 Solve division of whole number, fraction, and decimal problems.  
100304-0305 Solve fractional to decimal conversion problems.  
100304-0306 Solve decimal to fractional conversion problems.  
100304-0307 Solve decimal to percent conversion problems.

100304-0308	Solve basic linear measurement problems.
100304-0309	Solve inches to points conversion problems.
100304-0310	Solve points to inches conversion problems.
100304-0311	Solve copy reduction problems.
100304-0312	Calculate digital file size at various resolutions.
100304-0313	Calculate digital file size in various image modes.
100304-0314	Calculate the correct image resolutions for various output methods.

**STANDARD**  
**100304-04**      **Students will be able to understand and demonstrate how to manage files.**

**OBJECTIVES**

100304-0401	Explain the difference between work processing, illustration, image editing, and page layout.
100304-0402	Select appropriate software for word processing, illustration, image editing and page layout.
100304-0403	Identify various digital storage media.
100304-0404	Identify appropriate file transfer methods.
100304-0405	Define pre-flight and its use.
100304-0406	Preflight a document using application preflight software.
100304-0407	Identify various font formats and their uses.
100304-0408	Identify font management software and its use.
100304-0409	Demonstrate the proper use of font management software.
100304-0410	Identify different file formats and their uses.
100304-0411	Save images and documents into the appropriate file format.
100304-0412	Download electronic clipart from appropriate sources.
100304-0413	Identify the differences between raster and vector.
100304-0414	Create a PDF file of a created document.
100304-0415	Organize, delete, and rename files according to project requirements.

**STANDARD**  
**100304-05**      **Students will be able to demonstrate an understanding of design principles and typography.**

**OBJECTIVES**

100304-0501	Identify fundamental typeface terminology.
100304-0502	Identify specific characters terminology.
100304-0503	Identify various typeface characteristics and their uses.
100304-0504	Identify the basic type styles and their uses.
100304-0505	Define dingbats, bullets, rules, and symbols and their uses in publications.
100304-0506	Distinguish between display (headline) type and body (text) type.
100304-0507	Identify the basic type styles and their uses.
100304-0508	Explain letterspacing, tracking, and kerning of type characteristics.
100304-0509	Explain wordspacing and the relation of em and en in paragraph spacing.
100304-0510	Define linespacing/leading of text.

- 100304-0511 Define type alignment: flush left, flush right, centered, justified, and force justified.
- 100304-0512 Define design and it's role in graphic communications.
- 100304-0513 Identify the basic elements of design (lines, shapes, mass, texture, color).
- 100304-0514 Identify the basic principles of design (unity, contrast, proportion, balance, rhythm).
- 100304-0515 Prepare a series of hand-drawn sketches for layouts.

**STANDARD**                    **Students will be able to understand and apply page layout principles.**  
**100304-06**

**OBJECTIVES**

- 100304-0601 Identify the page layout elements.
- 100304-0602 Identify appropriate uses of the page layout elements.
- 100304-0603 Select appropriate page layout software for a given job.
- 100304-0604 Identify QuarkXPress's capabilities, advantages, and disadvantages.
- 100304-0605 Design and produce a single color document.
- 100304-0606 Design and produce a document using spot color.
- 100304-0607 Design and produce a document using process colors.
- 100304-0608 Create a design/publication using electronic clipart.
- 100304-0609 Create a printed piece using tints, reverses and manipulating type for effect.
- 100304-0610 Demonstrate the use of an electronic dictionary, and spell checker.
- 100304-0611 Demonstrate the use of automatic hyphenation.
- 100304-0612 Demonstrate a functional knowledge of QuarkXPress's keyboard shortcuts/menus.
- 100304-0613 Demonstrate text alignment, element positioning and rules of page design.
- 100304-0614 Demonstrate the use of master pages.
- 100304-0615 Demonstrate the use of style sheets.
- 100304-0616 Demonstrate the ability to format text (font, size, style).
- 100304-0617 Demonstrate the ability to adjust character attributes (setwidth, kerning, baseline).
- 100304-0618 Set up column grids for digital page layout according to job specifications.
- 100304-0619 Proofread, edit and make corrections/adjustments to copy on screen.
- 100304-0620 Proofread manuscript copy and make necessary corrections.
- 100304-0621 Set up/select appropriate pagination for a given job.
- 100304-0622 Set text with appropriate margins, formatting, gutters, and proper leading.
- 100304-0623 Import copy from word processing program to QuarkXPress.
- 100304-0624 Import a graphic image from an existing file into a QuarkXPress publication.
- 100304-0625 Demonstrate the procedure for cropping and resizing digital images.

- 100304-0626 Create a 2-sided, 3-panel, brochure using graphics and text.
- 100304-0627 Create a 2-page newsletter using drop caps, text wrap, and graphics.
- 100304-0628 Create a 4-page newsletter using graphics, display text, and body text.
- 100304-0629 Demonstrate importing scanned images into QuarkXPress.
- 100304-0630 Create an imposition for a multiple page document in QuarkXPress.

**STANDARD  
100304-07**      **Students will be able to understand and practice capturing images.**

**OBJECTIVES**

- 100304-0701 Define the difference between analog and digital images.
- 100304-0702 Identify scanner hardware and software basic components, uses, and limitations.
- 100304-0703 Demonstrate appropriate scanner/program operations for line art.
- 100304-0704 Demonstrate appropriate scanner/program operations for continuous tone copy.
- 100304-0705 Demonstrate appropriate scanner/program operations for printed images.
- 100304-0706 Identify high/low resolution images.
- 100304-0707 Explain the various components and operations of a digital camera.
- 100304-0708 Demonstrate appropriate digital camera operations for image capture.
- 100304-0709 Import digital images from a digital camera into the computer.
- 100304-0710 Create a proof sheet of images captured by a digital camera.

**STANDARD  
100304-08**      **Students will be able to understand and demonstrate editing digital images.**

**OBJECTIVES**

- 100304-0801 Demonstrate a functional knowledge of keyboard shortcuts/menus and procedures for their uses in a image editing program (e.t. Photoshop).
- 100304-0802 Edit a raster image editing program.
- 100304-0803 Identify filters and their use in an image editing program.
- 100304-0804 Create a design using filters in an image editing program.
- 100304-0805 Identify layers and their use in an image editing program.
- 100304-0806 Demonstrate the use of selection tools in an image editing program.
- 100304-0807 Create a design using layers in an image editing program.
- 100304-0808 Change the color mode of an image in an image editing program.
- 100304-0809 Change image resolution in an image editing program.
- 100304-0810 Change image size in an image editing program.

**STANDARD  
100304-09**      **Students will be able to understand and demonstrate digital illustration.**

**OBJECTIVES**

- 100304-0901 Demonstrate a functional knowledge of keyboard shortcuts/menus and procedures for their use in an image editing program (e.t. Illustrator).

- 100304-0902 Draw a design appropriate for a given job using an image editing program.
- 100304-0903 Create a design using tints and fills for a given job using an image editing program.
- 100304-0904 Trace a drawing/photograph using an image editing program.

**STANDARD  
100304-10** **Students will be able to demonstrate and understanding of outputting digital files.**

**OBJECTIVES**

- 100304-1001 Define CTP.
- 100304-1002 Demonstrate the proper procedures on printing a proof to a laser and/or inkjet printer using page layout software.
- 100304-1003 Output separations from a page layout document.
- 100304-1004 Define postscript.
- 100304-1005 Explain the purpose of a folding dummy.
- 100304-1006 Define various impositions systems such as work and turn, work and tumble, and sheetwise.
- 100304-1007 Identify analog and digital equipment for producing offset plates.
- 100304-1008 Produce an analog or digital plate for an offset printing.
- 100304-1009 Explain the basic principle of dot gain and its impact on printed materials.
- 100304-1010 Explain the purpose of a pin registration system.

**PROFESSIONAL DEVELOPMENT**

**STANDARD  
100304-11** **The student will understand the need for professional development.**

**OBJECTIVES**

- 100304-1101 Complete a personal inventory.
- 100304-1102 Set and meet goals.
- 100304-1103 Be self-motivated.
- 100304-1104 Know how to make decisions.
- 100304-1105 Know how to manage time.
- 100304-1106 Organize personal belongings and lab equipment.
- 100304-1107 Learn to communicate verbally.
- 100304-1108 Write effective communications.
- 100304-1109 Establish a personal reading program.
- 100304-1110 Develop effective work skills and attitudes.
- 100304-1111\* Master a working knowledge of SkillsUSA.
- State the SkillsUSA motto.
  - State the SkillsUSA creed.
  - Learn the SkillsUSA colors.
  - Describe the official SkillsUSA dress.
  - Describe the procedure for becoming a SkillsUSA officer.

**STANDARD 100304-12 The student will understand the need for leadership skills.**

**OBJECTIVES**

- 100304-1201 Serve on a committee.
- 100304-1202 Prepare an agenda.
- 100304-1203 Assist in planning a meeting.
- 100304-1204 Review basic parliamentary procedure.
  - Make a main motion.
- 100304-1205 Participate in a school project.
- 100304-1206 Attend a community meeting.
- 100304-1207 Practice effective speaking.
- 100304-1208 Present a three- to five-minute talk.
- 100304-1209 Implement a leadership project.
- 100304-1210\* Master a working knowledge of SkillsUSA.
  - Describe the meaning of the SkillsUSA emblem.
  - State the SkillsUSA pledge.
  - Describe the duties of a SkillsUSA officer.

**STANDARD 100304-13 The student will understand the need for career planning.**

**OBJECTIVES**

- 100304-1301 Define your future occupation.
- 100304-1302 Survey employment opportunities.
- 100304-1303 Report on a trade journal article.
- 100304-1304 Explore opportunities for advanced training.
- 100304-1305 Conduct a worker interview.
- 100304-1306 Contact a professional association.
- 100304-1307 Explore entrepreneurship opportunities.
- 100304-1308 Give a talk about your career.
- 100304-1309 Review career goals.

\* SkillsUSA PDP requirements - recommended