Multiple Category Scope and Sequence: Scope and Sequence Report For Course Standards and Objectives, Content, Skills, Vocabulary

Wednesday, August 20, 2014, 2:50PM

	Unit	Course Standards and Objectives	Content	Skills	Vocabulary
District Intermediate **Intermediate Graphics Communications (10.0302) (District)** 2014-2015 **Collaboration**	**Intro to Graphic Communications** (Week 1, 2 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 1 Students will be able to understand the introduction to the graphics/printing industry. ▪ Objective 1: Define the role of graphic communications. ▪ Objective 2: Identify print markets and types of print businesses. ▪ Objective 3: Describe major contributions in the history of printing. ▪ Objective 4: Explore printing technologies. ▪ Objective 5: Demonstrate the technical production flow from idea to finished product.	▪ History of printing ▪ Basic printing technology ▪ Technical production flow	▪ Explain the history of graphic communications ▪ Identify and describe various printing processes	▪ Gutenberg ▪ Senefelder ▪ Tsi'lun ▪ Lithography ▪ Gravure ▪ Relief ▪ Flexography ▪ Digital/Impactless ▪ Screen printing
	Safety (Week 2, 2 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Introduction to Graphic Communications Standard 2 Students will be able to understand and demonstrate safe practices. ▪ Objective 1: List safety rules involving chemicals and flammable liquids. ▪ Objective 2: Read, comprehend and follow instructions on warning labels. ▪ Objective 3: List the steps to be taken in case of injury in the lab.	*Machine Safety* ▪ Guards ▪ Nip point ▪ 1 person at a time ▪ Don't operate until trained and given permission ▪ Proper attire **Chemical** ▪ Don't sniff or taste ▪ Eye safety ▪ Proper disposal ▪ Hand washing ▪ Eating	▪ Demonstrate safe lab practices ▪ List step to be taken in case of injury ▪ Read and identify an MSDS ▪ Pass a lab safety test at 100% ▪ Follow general lab safety procedures	▪ MSDS ▪ Nip point ▪ Machine guard ▪ Solvent ▪ Spontaneous combustion ▪ Xacto knife

	▪ Objective 4: Identify locations of first aid kit, eye wash station, MSDS and safety equipment. ▪ Objective 5: Follow proper safety procedures and dress code when operating equipment. ▪ Objective 6: Demonstrate common sense when working with others. ▪ Objective 7: Pass general lab safety test.	▪ MSDS ▪ Warning labels ▪ Spontaneous combustion **General** ▪ First aid ▪ General common sense			
Design & Typography (Week 3, 2 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 3 Students will be able to understand and demonstrate design processes. ▪ Objective 1: Understand the design process. ▪ Objective 2: Define the principles and elements of design. ▪ Objective 3: Identify typeface classifications and their uses. ▪ Objective 4: Describe the anatomy of type. ▪ Objective 5: Understand point size, leading, and alignment. ▪ Objective 6: Measure type size and line weight in points. ▪ Objective 7: Create a design for printing, applying the design process.	**Design Process** ▪ Brainstorming ▪ Thumbnails ▪ Rough Sketch ▪ Comprehensive/Final **Elements of Design** ▪ Line ▪ Shape ▪ Mass ▪ Texture ▪ Color **Principles of Design** ▪ Balance ▪ Contrast ▪ Unity ▪ Proportion ▪ Rhythm **Typeface Classifications** ▪ Roman ▪ San Serif ▪ Square Serif ▪ Text/Black Letter ▪ Novelty/Decorative ▪ Script	▪ Demonstrate the design process ▪ Define the principles and elements of design ▪ Identify typeface classifications ▪ Use point size, leading and alignment ▪ Create a design for printing	▪ Thumbnails ▪ Rough sketch ▪ Elements of design ▪ Principles of design ▪ White space ▪ Typography ▪ Roman ▪ San Serif ▪ Square serif ▪ Leading ▪ Flush right ▪ Flush left ▪ Center ▪ Justify ▪ Points ▪ Line weight

		Typography ▪ Point size ▪ Leading ▪ Alignment		
Computer Skills (Week 5, 1 Week)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 4 Students will be able to understand and demonstrate computer skills. ▪ Objective 1: Select appropriate software types (i.e. word processing, page layout, paint, draw) and related applications. ▪ Objective 2: Identify software interface features (i.e. panels, menus, dialog boxes). ▪ Objective 3: Define hardware and hardware functions as they apply to the graphics industry. ▪ Objective 4: Understand digital publishing technology. ▪ Objective 5: Identify and determine appropriate file formats. ▪ Objective 6: Install fonts. ▪ Objective 7: Perform basic math skills. ▪ Objective 8: Create an interactive PDF.	**Software Types** ▪ Word processing ▪ Page layout ▪ Paint ▪ Draw **Software Interface Features** ▪ Panels ▪ Menus ▪ Dialog boxes ▪ Functions of Hardware and Software ▪ Image types (raster/bitmap and vector) **Different File Types** ▪ jpg/jpeg ▪ tif/tiff ▪ pdf ▪ eps ▪ ai ▪ psd ▪ indd ▪ png ▪ gif	▪ Choose proper software type for application ▪ Use panels, menus and dialog boxes ▪ Recognize file formats ▪ Differentiate between raster/bitmap and vector ▪ Create an interactive pdf ▪ Recognize the effect of resolution/dpi on image quality ▪ Install one font	▪ File Type ▪ Vector ▪ Raster/bitmap ▪ Panels ▪ Menus ▪ Dialog boxes ▪ Hardware ▪ Software
Digital Illustration (Week 6, 4 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 7 Students will be able to understand and demonstrate digital illustrations. ▪ Objective 1: Demonstrate operation of tools, panels, and menus in an illustration	▪ Raster versus vector ▪ Tool use (pen tools) ▪ Anchor points and paths ▪ Panels ▪ Menus ▪ How to create a new document in a drawing program	▪ Create a vector image ▪ Modify vector images ▪ Save documents in a pdf and eps formats ▪ Change sizes by converting fractions to decimals ▪ Create appropriate	▪ Raster ▪ Vector ▪ Anchor point ▪ Handles ▪ Vector formats (pdf, eps, ai, svg) ▪ Draw program ▪ Fill ▪ Stroke ▪ Swatch

	application (i.e. Illustrator). ▪ Objective 1: Change illustration software defaults. ▪ Objective 2: Understand the advantages & disadvantages of vector images. ▪ Objective 3: Comprehend process and spot colors. ▪ Objective 4: Define trapping. ▪ Objective 5: Solve ratio and percent equations. ▪ Objective 6: Create and modify a vector image.		color trap ▪ Solve ratio and percent equations	▪ Panel ▪ Bezier curves ▪ Color spaces (Spot Color, CMYK, RGB) ▪ Trapping
Printing Processes (Week 8, 3 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 8 Students will be able to understand and demonstrate printing processes. ▪ Objective 1: Classify the major printing process (flexography, lithography, screen, gravure, and digital). ▪ Objective 2: Identify products produce by each of the major printing process. ▪ Objective 3: Understand the concept of the image carrier for the major printing process. ▪ Objective 4: Identify other graphics communication processes (i.e. vinyl, engraving, embroidery, etc). ▪ Objective 5: Know substrate and basic paper grades (i.e. bond and cover). ▪ Objective 6: Produce a multi-color product.	▪ Printing processes ▪ Image carriers ▪ Products ▪ Substrates	▪ Design a product ▪ Prepare an image carrier ▪ Print a multi-colored product on a substrate	▪ Relief/flexography ▪ Offset lithography ▪ Gravure ▪ Screen printing ▪ Impactless/digital ▪ Substrate ▪ Image carrier ▪ Image area ▪ Non-image area ▪ Wrong reading ▪ Right reading

Finishing and Binding (Week 10, 1 Week)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 9 Students will be able to understand and demonstrate finishing and binding processes. ▪ Objective 1: Define finishing. ▪ Objective 2: Identify finishing processes. ▪ Objective 3: Define binding. ▪ Objective 4: Identify binding processes. ▪ Objective 5: Finish or bind a product.	**Finishing** ▪ Cutting ▪ Trimming ▪ Folding ▪ Scoring ▪ Perforating ▪ Die cut ▪ Embossing **Binding** ▪ Mechanical ▪ Adhesive	Perform calculations for cutting and trimming Operate a paper cutter Perform a mechanical bind Produce a adhesive bound product	Binding - Cutting - Trimming - Mechanical Binding - Adhesive Binding - Padding - Letter Size - Tabloid Size - Paper Grain - Imposition - Signature - Finishing - Perforation - Emboss - Die Cut - ▪ Raster ▪ Vector ▪ Resolution ▪ dpi ▪ Pixels ▪ Layers ▪ Masks ▪ Foreground ▪ Background ▪ Transparency ▪ Raster file formats (tiff, jpeg, png, gif)
Digital Image Editing (Week 11, 2 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 6 Students will be able to understand and demonstrate digital image editing. ▪ Objective 1: Demonstrate operation of tools, panels, and menus in an image editing application (i.e. Photoshop). ▪ Objective 2: Change image editing software defaults. ▪ Objective 3: Understand	▪ Set Paint program defaults ▪ Understand and use the various selection tools ▪ Understand and use the Control Panel ▪ Solve resolution problems ▪ Use the various layers panel functions ▪ Raster vs. Vector images ▪ Basic color changes on an image (i.e. RGB & CMYK) ▪ Know how to manipulate images in a Paint program	▪ Use a scanner or some other digital device to capture and image ▪ Acquire a photo and manipulate it's color ▪ Utilize layers	

	the advantages & disadvantages of raster images. ▪ Objective 4: Comprehend pixels, resolution, and interpolation. ▪ Objective 5: Compare line art, continuous tone and halftone image types. ▪ Objective 6: Capture an image (i.e. digital camera or scanner). ▪ Objective 7: Understand metric prefixes as they relate to file size. ▪ Objective 8: Identify color modes and their uses (i.e. RGB and CMYK). ▪ Objective 9: Utilize multiple selection methods, layers, and channels. ▪ Objective 10: Solve mathematical equations as they relate to pixels. ▪ Objective 11: Edit a color raster image.			
Page Layout (Week 13, 2 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 5 Students will be able to understand and demonstrate page layout. ▪ Objective 1: Demonstrate operation of tools, panels, and menus in a page layout application (i.e. InDesign). ▪ Objective 2: Change page layout software defaults. ▪ Objective 3: Define layout elements (body text, display text, illustration and white space). ▪ Objective 4: Demonstrate proper use of guides, margins, columns, gutters, and rows. ▪ Objective 5: Know basic	▪ How to use InDesign ▪ Basic tool panel ▪ Know the elements of layout ▪ How to work with master pages ▪ Principles of design ▪ Typography ▪ Copy fitting ▪ Place images and text ▪ Create a multiple page layout ▪ Create bleeds, register marks, crop marks ▪ Guides, margins, columns, gutters and rows ▪ Color separations ▪ Paper sizes	▪ Use columns, gutters and rows ▪ Import an image properly ▪ Export a pdf ▪ Create multiple page layout	▪ Page layout program ▪ Leading ▪ Kerning ▪ Alignment (center, justify, left, right, force) ▪ indd ▪ Columns ▪ Text Wrap ▪ Frame ▪ Margins ▪ Master pages ▪ Place holders ▪ Bleed ▪ Crop marks ▪ Registration marks ▪ Gutters ▪ Rows ▪ Color Separations

	paper sizes and orientations (i.e. letter and tabloid). ▪ Objective 6: Import and modify an image in a page layout program. ▪ Objective 7: Measure linear dimensions in inches and fractions of an inch to 1/16”. ▪ Objective 8: Comprehend crop and registration marks. ▪ Objective 9: Define bleeds. ▪ Objective 10: Output color separations. ▪ Objective 11: Perform fraction to decimal conversions. ▪ Objective 12: Create a multi-page layout.			
Printing Processes 2 (Week 15, 4 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Intermediate Graphic Communications Standard 8 Students will be able to understand and demonstrate printing processes. ▪ Objective 1: Classify the major printing process (flexography, lithography, screen, gravure, and digital). ▪ Objective 2: Identify products produce by each of the major printing process. ▪ Objective 3: Understand the concept of the image carrier for the major printing process. ▪ Objective 4: Identify other graphics communication processes (i.e. vinyl, engraving, embroidery, etc). ▪ Objective 5: Know substrate and basic paper grades (i.e. bond and	▪ Printing processes ▪ Image carriers ▪ Products ▪ Substrates	▪ Design a product ▪ Prepare an image carrier ▪ Print a multi-colored product on a substrate	▪ Relief/flexography ▪ Offset lithography ▪ Gravure ▪ Screen printing ▪ Impactless/digital ▪ Substrate ▪ Image carrier ▪ Image area ▪ Non-image area ▪ Wrong reading ▪ Right reading

	cover). ▪ Objective 6: Produce a multi-color product.			
Professional Skills (Week 17, 3 Weeks)	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Introduction to Graphic Communications Standard 9 Students will gain an understanding of Graphic Communications as a profession and will develop professional skills for the workplace. ▪ Objective 1: As a participating member of the SkillsUSA student organization complete the SkillsUSA Level 1 Professional Development Program. a. Complete a self-assessment inventory and identify individual learning styles. b. Discover self-motivation techniques and establish short-term goals. c. Determine individual time-management skills. d. Define future occupations. e. Define awareness of cultural diversity and equity issues. f. Recognize the benefits of conducting a community service project. g. Demonstrate effective communication skills with others. h. Participate in a shadowing activity. i. Identify components of an employment portfolio. j. Explore what is ethical in the workplace or school. k. Demonstrate proficiency in program competencies. l. Explore what is ethical in the workplace or school. - State the SkillsUSA motto.	▪ Self-motivation techniques ▪ Identify personal learning style ▪ Setting short-term goals ▪ Performing community service projects	▪ Complete self-assessment inventory ▪ Participate in a shadowing activity ▪ Define future occupations	▪ Self-assessment ▪ Job shadowing ▪ Internship ▪ Goal setting ▪ Cultural diversity ▪ Time-management ▪ Resume'

- State the SkillsUSA creed.
- Learn the SkillsUSA colors.
- Describe the official SkillsUSA dress.
- Describe the procedure for becoming a SkillsUSA officer.

- Objective 2: Understand the role graphic communications and relate career opportunities.
- Objective 3: Display a professional attitude toward the instructor and peers.

Review & Testing

(Week 18, 2 Weeks)