Graphic Print Design 1

Graphic Communications
The visual exchange of information using text and images.

Print Markets - Identified by individuals/businesses you are serving.
Types of print businesses - Identified by the items you are printing/producing.
Printing Technologies - Offset Lithography, Screen Printing, Flexography/Relief/Letterpress, Intaglio/Gravure, Digital, Sublimation.
Offset Lithography - (Water/ink don't mix.) Brochures, business forms, books, business cards.
Screen Printing - (Force ink through openings in stencil/mesh of a screen.) Most versatile, glass, metal, plastic, textiles.
Flexography/Relief/Letterpress/ - (Raised image.) Package printing, foil, plastic, fabric.
Intaglio/Gravure - (Sunken image.) Currency, postage stamp, gift wrap, wall paper.
Digital - (Toner/ink based.) Variable data, wide format, vehicle graphics, posters, business cards.
Printing - Transferring an image from a carrier to a substrate.
Substrates - Any material surface that can be printed to.
Design - The use of elements/principles of art to create visual content to inspire, inform, and captivate.

Safety

Rinse Eyes - Recommended time is 15 minutes.
Rules involving chemicals and flammable liquids - Store in flammables cabinet, clean up spills, report leaks, proper labels. Store flammable rags in a safety can. Read, comprehend, and follow instructions on labels - Read the label before using any chemical. List the steps to be taken in case of injury in the lab - Tell Instructor, first aid, contact office or 911. Identify locations and safety equipment (e.g. first aid kit, eye wash station, MSDS, flammables cabinet) - DO it. Follow proper safety procedures and dress code when operating equipment - You MUST receive training before operating ANY equipment! Only ONE person can operate equipment at a time! Loose clothing/hair/jewelry etc, are dangerous around equipment! Demonstrate common sense when working with others - You will be removed from the class for idiotic/dangerous behavior.

Design Process

Four core frameworks of art/design - Create, Present/Produce, Respond, Connect.
Steps in the design process - Research/Planning, Brainstorming, Thumbnails, Roughs, Feedback, Revisions.
Elements of art/design - Color, Line, Shape, Form, Value, Texture, Space.
Color - Communicates a mood and has a psychological or emotional impact.
Line - Has width, direction and length. Used to create outlines, shapes, patterns, and space.
Shape - Two dimensional. Geometric and organic.
Form - Three dimensional or 3D effect.
Value - Lightness or darkness of a color. Tinting adds White. Shading adds Black. Toning adds Grey.
Texture - The feel of a surface, or implied physical quality. (Hard, soft, rough, smooth, etc.)
Space - Distances and areas around, between, and within art/objects. Positive **Space** *(the object)*. **Negative Space** *(area around object)*.
Principles of art/design - Balance (formal/symmetrical, informal/asymmetrical, radial), Movement, Unity, Proportion, Emphasis, Pattern, Variety.
Balance - The distribution of visual weight.
Symmetrical/Formal - Same on both sides.
Asymmetrical/Informal - Different on both sides.
Radial - Designed around a central point.
Movement - Illusion of action or direction. Pulls your eyes around the design or shows action.
Unity - Joining parts together to make them whole. Each part has a clear relationship to each other.
Proportion - Relationship between the size of each part and the whole of the parts.
Emphasis - Creating a center of interest or focal point. (Contrast, Focus, Scale, Repetition, Color, Details, Isolation)
Pattern - Using shapes, lines, or colors again and again.
Repetition - Using ONE shape/line/color in SAME order.
Pattern - Using MULTIPLE shapes/lines/colors in SAME order.
Rhythm - Using MULTIPLE shapes/lines/colors but NOT in the SAME order.
Variety - Using different objects, patterns, colors, shapes, or lines to create interest. Designs without variation are boring.

Color Theory

RGB - Additive Color Mode used for electronic display. (Red, Green, Blue).
CMYK - Subtractive Color Mode used for full color process printing. (Cyan, Magenta, Yellow, Black).
Elements of Color - Hue, Saturation, Value.
Hue - The "name" of a color.
Saturation - The "strength" of a color.
Value - How light or dark a color is.
Variations of Color - Tint/Shade, Patterns, Gradients, Opacity.
Tint - Adds White to effect color saturation.
Shade - Adds Black to effect saturation.
Pattern - Using colors in a repeating or varying sequence.
Gradient - Transition between two or more colors or shades.
Opacity - Ability to block or allow an object to be transparent.
Color Wheel - Shows the relationship between colors.
Color Schemes - Logical combinations of colors on the color wheel.
(Complimentary, Monochromatic, Analogous, Triadic).
Complimentary Colors- Two colors (hues) opposite from each other on the color wheel.
Monochromatic Colors - Single color (hue) with tones, shades, and tints.
Analogous - Three colors (hues) next to each other on the color wheel.
Triadic - Three colors (hues) equally spaced around the color wheel.
Tetradic - Two sets of complementary colors (hues).
Warm Colors - Red, orange, and yellow.
Cool Colors - Green, blue, and violet.

Typography

Typeface Design Classifications - Serif, Sans Serif, Script, Decorative.
Serif - Identified by a line or stroke attached to the end of a letter or glyph.
Sans Serif - Identified by a clean look and no serifs.
Script - Identified by a handwritten style.
Decorative - Not used for a large body of text.
Font Family - The name of a font or typeface.
(Helvetica, Times New Roman, Arial, Courier, etc.).
Type Style - Normal, Bold, Italic, etc.
Type Anatomy - Baseline, ascender, descender, serif, x-height, capline, etc.
Baseline - Line that the bottom of a lower case e would touch.
Ascender - Part of a character that extends above the mean line.
Descender - Part of a character that extends below the baseline.
Serif - A line or stroke attached to the end of a letter or glyph.
X-height - The distance between the baseline and the mean line of lowercase letters.
Cap Line - Line that the top of an capital E would touch.
Text Alignment - Center, justified, flush right/left.
Point Size - The maximum vertical distance between the ascender and descender of a typeface.

Vector Graphics

Adobe Illustrator - Tools, Panels, Menus, Interface, Preferences, Settings, Keystrokes, Shortcuts.
Vector Graphics - Math formulas. Objects consist of paths (lines and bezier curves), anchor points, and direction handles. Can be scaled indefinitely without loss of quality.
Vector File Formats - .pdf, .ai, .eps, .svg.

Raster Graphics

Adobe Photoshop - Tools, Panels, Menus, Interface, Preferences, Settings, Keystrokes, Shortcuts.
Raster Graphics - Pixels. Resolution dependant. Quality will decrease when scaled larger.
Raster File Formats - .jpg/.jpeg, .gif, .png, .tiff, .bmp, .psd, .raw.
Pixels - Grid of squares that makeup a raster image. The smallest element of a raster image.
Resolution - Often measured in ppi or dpi. Refers to the amount of pixels in a given area of an image.
Web Resolution - 72 ppi.
Print Resolution - 300 ppi.
Compression - Process that makes image files smaller. Depending on the file format, image details can be lost.
Acquiring Image Assets - Scanner, Digital Camera, Internet, Stock Images.
Non-Destructive Editing - Making changes to an image without overwriting the original image data.
Transparent Background Raster Formats - .png, .gif.

Line Art - Solid black lines on a white background.
Continuous Tone - Illustration with graduations of tones from light to dark. Photograph.
Halftone - Different sized dots that simulate light and dark areas.

Project Management

File Management - Process of naming and storing digital files/folders in an organized structure for easy retrieval.
File Sizes - KB (Kilo Byte), MB (Mega Byte), GB (Giga Byte), TB (Tera Byte).
Browser Viewable File Formats - .svg, .png, .jpg, .gif, .pdf.
Collaborative Technologies - A tool or software designed to facilitate working in groups. i.e. Google Drive, Dropbox, Zoom, FTP.
Embedded vs. Linked Assets - Embedding an object makes it part of the document, while linking an object does not include the object file into the document files.

Print Production

Common U.S. Paper Sizes - Letter (8.5" x 11"), Legal (8.5" x 14"), Tabloid (11" x 17").
Digital Printing Processes - inkjet, laser, large format, dye sublimation, direct-to-garment.
Inkjet - Recreates a digital image by propelling droplets of ink onto a substrate.
Laser - Toner based system that fuses a recreated image to a substrate.
Large Format - Printing that uses larger than common print media.
Dye Sublimation - Uses heat and pressure to change solid inks to gas that dye a substrate.
Direct-to-Garment - Printing that sprays ink onto garments (DTG).
Digital Printing Media - Substrates used in digital printing. i.e., Paper, banner, vinyl decals, car wrap vinyl, etc.

Workplace Skills

Workplace Skills - Communication, Team Work, Customer Service, Dependability.
Graphic Artist - Person responsible for the look and feel of a project.
Project Manager - Person responsible for planning, monitoring and controlling projects.
Programmer - Person responsible for developing and maintaining computer software.
Subject Matter Expert - Person who has detailed knowledge about a project and checks the accuracy of content.
Technical Writer - Person who prepares instruction manuals and other technical documents.
A/V Specialist - Person who installs, monitors and maintains sound and video equipment.
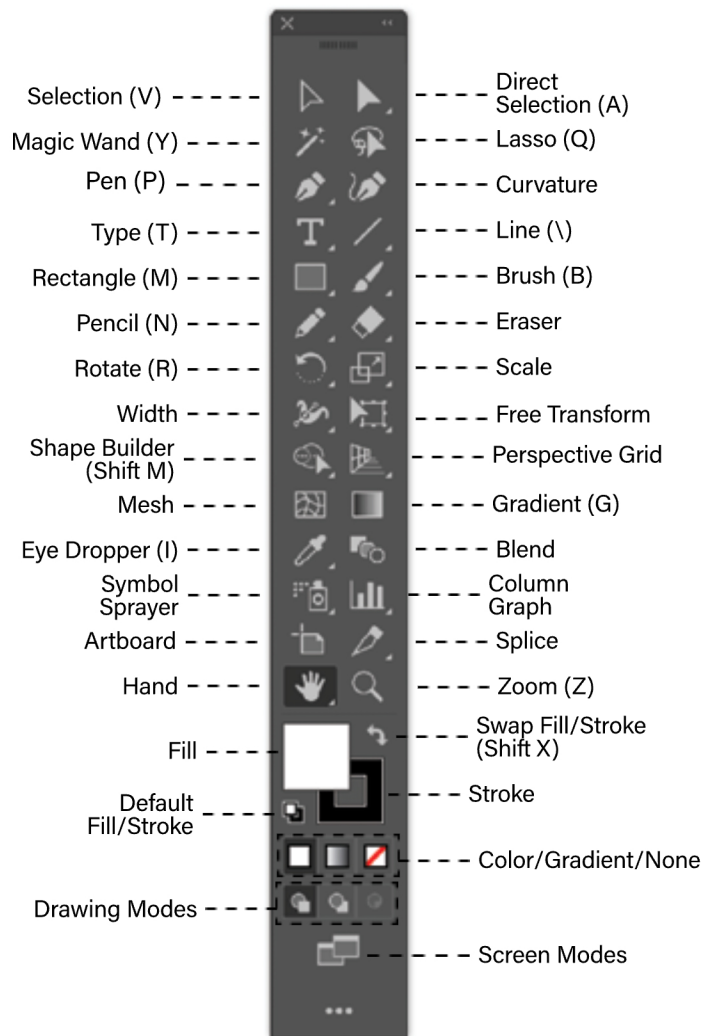**3D Animator** - Person who creates special effects or animation using film, video and computers.
Intellectual Property - Original creations such as copyright and trademark.
Fair Use - Allows a student to use copyrighted works for educational purposes.
Copyright - Exclusive legal right given to a person to print or publish, artistic material.
Public Domain - Creative work without copyright and free to use however you want.

Illustrator Toolbar

Selection (V) - - - - - - - Direct Selection (A)
Magic Wand (Y) - - - - - - - - Lasso (Q)
Pen (P) - - - - - - - Curvature
Type (T) - - - - - - - - Line (\)
Rectangle (M) - - - - - - - Brush (B)
Pencil (N) - - - - - - - Eraser
Rotate (R) - - - - - - - Scale
Width - - - - - - - Free Transform
Shape Builder (Shift M) - - - - - - - Perspective Grid
Mesh - - - - - - - Gradient (G)
Eye Dropper (I) - - - - - - - Blend
Symbol Sprayer - - - - - - - Column Graph
Artboard - - - - - - - Splice
Hand - - - - - - - Zoom (Z)
Fill - - - - - - - Swap Fill/Stroke (Shift X)
Default Fill/Stroke - - - - - - - Stroke
- - - - - - - Color/Gradient/None
Drawing Modes - - - - - -
- - - - - - - Screen Modes

Photoshop Toolbar

Move (V) - - - - - - - Marquee (M)
Lasso (L) - - - - - - - Quick Selection (W)
Crop (C) - - - - - - - Frame
Eye Dropper (I) - - - - - - - Spot Healing Brush
Brush (B) - - - - - - - Clone Stamp (S)
History Brush - - - - - - - Eraser (E)
Gradient (G) - - - - - - - Blur
Dodge - - - - - - - Pen
Type (T) - - - - - - - Path Selection
Rectangle - - - - - - - Hand
Zoom (Z) - - - - - -
Foreground - - -
- - - - - - - Background
Quick Mask - - - - - - - Screen Mode