PASSAIC COUNTY TECHNICAL INSTITUTE

GRAPHIC ARTS 2
CURRICULUM GUIDE

Instructors:

Mark Phillips / Jose Arce / Luis Colón / Fernando Colón

REVISED: June 2011

I. Course Description – Graphic Arts 2

Graphic Design is a creative process that combines art and technology to communicate ideas. The designer works with a variety of communications tools in order to visually convey a message for a client's product or service to a particular target audience. This course will give students a foundation in Graphic Design by introducing them to the various aspects of the Graphic Design field.

Students will work on projects utilizing industry standard software and hardware in a classroom environment that simulates a real-world design studio. They will be introduced to the basic design principles and processes that must be followed in order to successfully complete projects that meet specific criteria.

Students will also become familiar with production techniques with industry standard software such as Adobe Photoshop, Illustrator and InDesign and post production techniques for finishing, mounting and the creation of mock-ups.

In addition to the computer and software, students will properly handle and use drawing tablets, digital cameras, scanners, and other various output devices such as printers and backup storage disks applicable to projects.

Students will be required to demonstrate ability in all educational projects and assignments and test with a minimum of 65% proficiency.

II. Course Outline and Objectives

UNIT 1: 2D DESIGN FUNDAMENTALS   (9.1.12.A,2; 1.3.12.D.3)

Students will:
1. build a working vocabulary of art, design, and visual communication terminology
2. know about and explore various design forms, elements, traits of elements and formal relationships
3. produce the best possible design solution within given limits of time and resources
4. be able to effectively apply valid 2D design principles to a variety of visual expressions and communication problems
5. become familiar with the process of design, design analysis, and creative problem-solving
6. initiate an awareness of 2D artists and designers who are, or were, remarkable for their designs

UNIT 2: SHOP SAFETY (9.2.12.F.2,4)

Students will:

1. identify and handle the tools of the trade in an accurate and safe manner
1. demonstrate safety when handling tools such as razor blades, X-Acto and mat knives
2. utilize all tools of the trade with various projects and jobs
3. identify replacement costs of tools of the trade, respecting them with proper care and storage for future use
4. clean tools with appropriate cleaning products and keep sink and all areas clean at all times
5. identify proper usage of adhesives and use them in a safe manner
6. understand procedures of shop safety and first aid
7. complete each project following all required criteria as given in job or project description
8. understand why following dimensions and specific instruction in job descriptions are vital for successful completion
9. use appropriate equipment and tools in a safe, proper manner within the assigned job or project deadline
10. demonstrate appropriate use of light table for elements in design
11. understand purpose of overhead projectors for large format projects
12. use proportional scale for figuring proper enlargement/reduction values
13. operate the Xerox printers/copiers safely for enlarging/reducing, scanning and duplicating, using appropriate modes and paper
14. operate and maintain computers and all peripherals (digital camera, scanner, printers)

UNIT 3: FOUNDATIONS OF DESIGN (9.1.12.B.3; 1.3.12.D.4)

Section 1: Principles of Design – Level 2

Students will:

1. utilize the characteristics of basic design elements such as: line, shape, volume, space, value, texture, color, scale/proportion, unity, contrast, repetition/variation, and rhythm within projects
2. utilize the effective use of negative and positive space within design elements and layout
3. dissect designs from established designers and identify what makes each piece successful or unsuccessful

Section 2: Design and Layout – Level 2

Students will:

1. create design solutions that follow the basic principles of design
2. create design solutions that break the basic principles of design
3. adapt layouts to different print and digital media
4. create master templates from custom layouts for multi-page documents

Section 3: Color – Level 2

Students will:
1. create custom color sets for print and digital design
2. learn how to append color sets to other documents
3. utilize color in an abstract way to communicate an emotional response
4. learn how color affects human behavior (i.e. decision making)
5. learn how color and icon design work together (modern day symbolism)

Section 4: Typography – Level 2

Students will:
1. review the history of letterforms and the functions of typography
2. learn about the anatomy of type
3. understand the differences between type classifications, typestyles and type families
4. examine the construction and aesthetic application of typographic text
5. understand the use of typography as an essential element of design
6. appropriately and effectively use, treatment and application of type in a variety of formats
7. learn to modify and customize type for specific project needs

UNIT 4: TECHNOLOGY FOUNDATIONS (9.1.12.B.3; 1.3.12.D.4)

Section 1: Technology Skills

Students will:
1. identify and use computer and peripherals used in Graphic Design
2. be proficient in software applications used in a typical Graphic Design environment
3. understand how to open, close and manage fonts utilizing a font manager
4. for various projects
5. utilize the scanner to properly digitize custom illustrations, textures and photography
6. learn how to properly adjust a digital camera for taking photos in various environments
7. understand the costs of all hardware, peripherals and software used in the Graphic Design field
8. properly create files and save them in the appropriate folders and/or storage disks
9. name files according to project name for easy retrieval
10. understand the importance of frequent saving and backing up of files
11. maintain computers and peripherals, shutting down and storing appropriately
12. utilize the internet to assist in subject matter research, understanding copyright laws
13. utilize online tutorials and educational tools
14. understand how to use the computer to save, resize and properly print reference
15. understand how to use spell-check and the importance of perfect spelling and punctuation in projects
16. understand the need for proofing, revisions and acquiring a sign off/approval from the client
17. utilize printer/copier to further enlarge, resize and alter reference images
18. practice proper composite output using the appropriate devices
19. complete all projects following all criteria within deadline assigned

Section 2: Vector-Based Software (Adobe Illustrator) Level 2   (9.1.12B.3; 1.3.12.D.4)

Students will:
1. create Illustrator documents for various projects
2. utilize keyboard commands to maximize productivity
3. understand the Illustrator interface (menus, palettes)
4. practice basic drawing technique with the pen, brush and objects tools
5. practice basic path editing
6. practice basic text editing
7. understand Appearances and how to edit them
8. work with Groups and Layers to keep drawings organized
9. understand how to work with color
10. practice object transformation and positioning
11. practice expressive drawing with brushes
12. understand how to create and use Symbols
13. understand how to work with images
14. learn how to save and print their projects
15. learn how Illustrator works with other programs
16. Represent proper use of color, tint, opacity and stroke thickness
17. use functions such as, but not limited to, free transform, pathfinder functions, effects, live trace and managing those features when needed in design
18. use guides for proper alignment in designs
19. demonstrate a knowledge of vector based fonts, symbols and libraries.
20. save in appropriate format upon request and understand purpose of file formats (AI, EPS, PDF, etc)
21. resize artwork in layouts in proportion using correct tools and keys

Section 3: Pixel-Based Software (Adobe Photoshop) Level 2   (9.1.12B.3; 1.3.12.D.4)

Students will:
1. learn keyboard shortcuts to streamline workflow
2. make selections via quick selection tools or quick mask mode
3. create accurate paths with the Pen tool
4. be introduced to the basics of Layers and Adjustment Layers
5. learn to crop, transform and straighten images
6. understand and read histograms
7. use Adjustment layers and the Adjustment panel
8. adjust tones with Levels
9. limit adjustments with Layer Masks
10. create vector masks
11. adjust images with Shadow/Highlight
12. adjust images with Curves
13. adjust images with Hue/Saturation
14. learn to remove a color cast
15. adjust images with the Black & White adjustment layer
16. learn to use the the Dodge, Burn and Sponge tools
17. learn how to reducing noise and utilize proper sharpening techniques

18. work with Point Type and Paragraph Type
19. learn how to Warp text
20. learn Special Effects such as adding Layer Styles and Smart Filters
21. learn how to combine images utilizing Auto-blending Focus
22. combine group photos
23. learn how to output a file by selecting the appropriate print settings for individual projects
24. save in appropriate format upon request and understand purpose of file formats (PSD, JPEG, EPS, GIF, PNG, RAW, PDF, etc)
25. optimize images properly for their intended use (print, web, oversized graphics, mobile devices)
26. understand and demonstrate the difference between destructive and non destructive editing and their types

Section 4: Page Layout Software (Adobe InDesign) Level 2 (9.1.12B.3; 1.3.12.D.4)

Students will:
1. understand how to create a Workspace and save custom Workspaces
2. Identify menu items, tools, palettes and menus and how to use them
22. utilize keyboard commands to maximize productivity
3. learn to navigate a multi-page document
4. learn to set rulers, guides and measurements and view options
5. use guides for proper alignment in designs
6. use Contextual Menus and how to customize them
7. use the Quick Apply function
8. learn how to create new documents
9. set margin and column guides
10. learn how to insert, delete, and move pages
11. add sections and page numbers
12. create and apply master pages
13. understand text frames
14. type and edit text and use special characters
15. import text and auto-flow text
16. use text on a path
17. spellcheck a document
18. use the Auto Correct feature
19. import graphics from various formats and understand how to use the Links panel
20. learn how to edit original graphics and how to set frame-fitting options
21. set transparency and clipping paths
22. turn image layers on and off
23. learn how to select objects
24. use basic strokes and fills
25. use advanced strokes
26. use transparency

27. add drop shadows, feathering and effects to format objects
28. use the Eyedropper tool
29. understand grouping and locking objects
30. learn to align and distribute objects
31. understand how to create and edit text wraps
32. duplicate, scale, mirror and rotate objects
33. apply basic character styling
34. use Find/Change for text formatting
35. understand paragraph formatting
36. understand justification
37. understand tabs
38. apply character, paragraph and object styles
39. create a table with rows and columns
40. learn how to add, delete and adjust rows and columns
41. format a table and cells
42. add headers and footers
43. apply table styles
44. place graphics in cells
45. create color swatches
46. apply tint swatches
47. use gradient swatches and apply gradients
48. export files to different formats such as PDF, JPEG and TIF
49. use preflight options and package for output
50. understand the print dialogue box
51. export printer ready PDF files (with crop marks, registration marks and properly set colors for separation)
52. use the master page palette for template design for multiple pages
53. show proficiency in how to place and properly scale and rotate images
54. utilize columns for text for readability, using text wrap with images if appropriate
55. understand page layout and printer spreads

UNIT 5: PRODUCTION & FINISHING SKILLS

Students will:
1. understand how to setup document bleeds
2. understand crop marks, registration marks, color bars and page information
3. know how to trim printed pieces utilizing the X-Acto knife and straight edge
4. know to size and trim a presentation board
5. know how to mount printed pieces on board using eco-friendly adhesives
6. know how to clean their finished pieces with a kneaded eraser
7. understand how to setup and fold multi-page pieces

III. Textbooks, Instructional Materials and Software

Technology:
- PC based environment with Adobe Creative Suite, latest version, (Photoshop, Illustrator, InDesign)
- Computer projector with wall mounted screen for teacher instruction
- Smart board for interactive instruction
- Microsoft Internet Explorer
- Microsoft Office 2010 (Word, PowerPoint)
- Wacom Intuos 3 and 4 drawing tablets
- Wacom Cintiq digital drawing display
- Digital cameras
- Black & White and color copiers
- Wide format printers
- HP and Epson scanners
- Laser printers

Tools of the trade:
- Rulers, T-squares & triangles
- Sketch pads
- Various paper stocks
- Prismacolor colored pencils
- Prismacolor markers
- X-Acto and mat knives
- Lucite roller
- Rubber cement, tape, StudioTac adhesive
- Paper cutter
- Light tables

IV. Instructional Strategies

Various teaching methods will be used during the course. Handouts and discussion will be used, however, most of the instruction of this course will be a hands on instruction, in groups and individually. Live demonstrations will be made by the instructor then repeated and practiced by the students with one-on-one interaction to check for understanding. Real-time lessons will take place in a large group with the teacher on the computer using the projector, students working on their own computers with the teacher. Individual proofing and consulting will take place after demonstrations take place and art projects begin. Group critiques and individual evaluation will take place upon completion of art projects.

During the course of the year students could be given the opportunity to review design books and magazines, review websites for potential ideas for new projects and potentially meet people from industry and take field trips.

V. Evaluation

Students are evaluated using the following criteria:
1. Class participation (examples include attendance, completion of daily duties, general behavior towards classmates and instructor, sharing and maintenance of equipment and tools)
2. Research and design maintenance (examples include maintenance of all notes, project stages, file backups)
3. Composite presentation
4. Accuracy in meeting project criteria
5. Quizzes and tests
6. Deadline (deductions apply to all late projects)
7. Portfolio maintenance

VI. Scope and Sequence Chart

KEY   I = Introduced   D = Developed   R = Reinforced

SKILLS TO BE LEARNED	9	10	11	12
Handle tools of the trade and equipment correctly and safely (9.2.12.F.1,2,4,5)	IDR	IDR	IDR	IDR
Demonstrate knowledge of digital file organization and archiving (9.1.12.B.3,4)	ID	R	R	R
Demonstrate a professional work ethic (9.1.12.B.3,4)	I		DR	DR
Use effective time management skills in the production of projects (9.1.12.B.3)	ID		DR	R
Demonstrate craftsmanship (organization, neatness, precision) (9.1.12.B.3,4)	ID	IDR	IDR	IDR
Understand and practice the characteristics of basic design principles (9.1.12.B.3)	I	R	R	R
Understand the creative process and importance of each step (9.1.12.B.2,4; 9.2.12.D.1)	I	D	IDR	IDR
Apply appropriate software solutions to design problems (9.1.12.B.3,4)	I	D	DR	R
Articulate and solve basic problems of form and function (9.1.12.B.3,4)	I	D	DR	DR
Identify and apply the critical thinking process to design challenges (9.1.12.B.3,4)	I	DR	DR	DR
Cut accurately using an X-Acto knife and mat knife in a safe manner (9.2.12.F.2)	ID	IDR	IDR	IDR
Understand the value of all tools, equipment, and supplies (9.2.12.E.1)	I	ID	IDR	IDR
Demonstrate tool skills through a variety of creative art projects (9.2.12.F.4; 9.2.12.B.3; 1.4.12.B.3)	I	D	R	R
Demonstrate correct use of appropriate adhesives, and chemicals (9.2.12.F.4)	IDR	IDR	IDR	IDR
Demonstrate proper inventory and storage of supplies (9.2.12.F.5)	ID	ID	R	R
Read and measure accurately with a standard American ruler (9.2.12.B.2)	I	R	R	R
Demonstrate knowledge of alignment, balance, proportion and use of positive and negative space (1.4.12.B.2)	I	ID		IDR
Demonstrate knowledge of color (primary, secondary, tertiary, complimentary) (1.4.12.B.2)	I	D		IDR
Demonstrate knowledge of working in mixed media. (1.3.12.D.2)	I	ID		IDR
Create vector illustrations to be used in design layouts (1.4.12.B.3; 1.1.12.D.2)	I	ID	ID	IDR
Utilize work area in a clean organized manner. (9.1.12.B.4)	IDR	IDR	IDR	IDR
Demonstrate an awareness of art history and how it relates to design and media (1.2.12.A.1,2)	I	D		IDR
Understand the creative process and importance of each step (9.1.12.B.3)	I	D		IDR

Understand of the importance of meeting a deadline (9.1.12.B.3,4; 9.2.12.D.1)	IDR	IDR	IDR	IDR
Demonstrate knowledge of documentation of design time and understanding commercial worth of the profession (9.1.12.B.3,4)		I	ID	IDR
Prepare thumbnails, roughs, and comps (9.1.12.B.2,4)	I	IDR	DR	IDR
Demonstrate knowledge of typography, font styles, point size & layout purposes (9.1.12.B.3)	I	ID	IDR	IDR
Create and understand purpose of logo(s) to brought through on other projects. Ex. Stationary, ad, package, etc. (9.1.12.B.3; 1.3.12.D.4)		I	ID	IDR
Demonstrate knowledge of package design (1.3.12.D.1,4)				IDR
Demonstrate knowledge of basic elements of operation of computers, printers, scanners, and other peripherals such as drawing tablets (9.1.12.B.3)	IDR	IDR	IDR	IDR
Demonstrate knowledge of appropriately enlarging and reducing art with copying and printing (9.1.12.B.3)	ID	IDR	IDR	IDR
Demonstrate knowledge of the differences between vector based and pixel based artwork and the appropriate use for each (9.1.12.B.3; 1.3.12.D.4)	I	D	IDR	IDR
Demonstrate proficiency in Adobe Illustrator including tools, palettes, options and production formats (9.1.12.B.3; 1.3.12.D.4)	I	DR	IDR	IDR
Demonstrate proficiency in Adobe Photoshop including tools, palettes, options and production formats (9.1.12.B.3; 1.3.12.D.4)	I	DR	IDR	IDR
Demonstrate proficiency in Adobe InDesign including tools, palettes, options and production formats (9.1.12.B.3; 1.3.12.D.4)	I	DR	IDR	IDR
Demonstrate proficiency in Using drawing tablets for illustration and digital image composition (9.1.12.B.3; 1.3.12.D.4)	I	D		IDR
Demonstrate proficiency in using digital cameras for artwork, layout, and composition in various lighting conditions (9.1.12.B.2)	I	ID		IDR
Understand print versus web resolution (9.1.12.B.2)	I	IDR	IDR	IDR
Understand difference between RGB, spot color, and CMYK (9.1.12.B.2)	I	IDR	IDR	IDR
Demonstrate knowledge and purpose of copyrighted images, Royalty Free images, the Fair Use Act and their rights and/or limitations (9.1.12.B.2)		I	R	IDR
Mount & Mat artwork in a professional manner (9.1.12.F.4)		I	ID	IDR
Demonstrate knowledge of setting up research reference files (9.1.12.B.3,4)	I	ID		IDR
Demonstrate knowledge of the cost of tools of the industry (9.2.12.E.1)	I	I	DR	DR
Create and revise of a resume for employment (9.1.12.A.4)	I			IDR
Demonstrate knowledge of the many career opportunities related to graphic design (9.1.12.A,2; 1.3.12.D.3)	I	ID	IDR	IDR
Apply knowledge gained through research of trends & styles into design projects (9.1.12.A.4)	I	ID	R	R
Integrate design concepts with materials, skills, and technology (9.1.12.B.3)	I	ID	R	R

Develop ability to critique, defend, & support the integrity of a chosen project (9.1.12.A.4)		ID	R	R
Relate printing terms, concepts, & processes to the prep of digital documents (9.1.12.A.4)		I	ID	IDR
Assess personal strengths and weaknesses (9.1.12.B.3)		I	D	R
Assemble a final portfolio with a variety of design projects (9.1.12.B.3)		I		DR
Present art portfolio in a professional manner (9.1.12.A.4)			ID	IDR

VII.   Pacing Chart

	DAYS 1-45 WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9
MP 1	Shop Safety	2D Design Fundamentals	2D Design Fundamentals	Principals of Design - Level 2	Principals of Design - Level 2	Principals of Design - Level 2	Vector-Based Software (Adobe Illustrator) Level 2	Vector-Based Software (Adobe Illustrator) Level 2	Vector-Based Software (Adobe Illustrator) Level 2
	DAYS 46-90 WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**	**WEEK 8**	**WEEK 9**
MP 2	Design and Layout - Level 2	Design and Layout - Level 2	Pixel-Based Software (Adobe Photoshop) Level 1	Pixel-Based Software (Adobe Photoshop) Level 1	Pixel-Based Software (Adobe Photoshop) Level 1	Pixel-Based Software (Adobe Photoshop) Level 1	Pixel-Based Software (Adobe Photoshop) Level 1	Typo-graphy - Level 2	Production and Finishing Skills
	DAYS 91-135 WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**	**WEEK 8**	**WEEK 9**
MP 3	Typo-graphy - Level 2	Color - Level 2	Color - Level 2	Page Layout Software (Adobe InDesign) Level 2	Page Layout Software (Adobe InDesign) Level 2	Page Layout Software (Adobe InDesign) Level 2	Page Layout Software (Adobe InDesign) Level 2	Page Layout Software (Adobe InDesign) Level 2	Production and Finishing Skills
	DAYS 136-180 WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**	**WEEK 8**	**WEEK 9**
MP 4	Typo-graphy - Level 2	Typo-graphy - Level 2	Color - Level 2	Color - Level 2	Design and Layout - Level 2	Design and Layout - Level 2	Design and Layout - Level 2	Production and Finishing Skills	Production and Finishing Skills

VIII. Student Handout - Graphic Arts 2

Students will be introduced to Graphic Design and work in an environment that emulates a real-world design studio. This course will focus on building foundations in design and adapting them for the many platforms and devices in which digital content is delivered.

Graphic Arts students are taught about design, layout, typography and color theory. Students learn in a hands-on environment, using industry-related technology and software.

A focus on concept development and problem solving is emphasized and encouraged. This is done through thumbnails sketches, intermediate rough layouts and final comprehensives. The process is repeated for each project for retention and best practices.

Once students have learned the design process, the execution of concepts with the use of technology is emphasized. Students are taught to pay attention to the minute details that are essential to properly finishing a project. Creative and technical skills are necessary to complete projects successfully.

PROFICIENCIES:
Students will:
1. Handle tools of the trade and equipment correctly and safely
2. Demonstrate knowledge of digital file organization and archiving
3. Demonstrate a professional work ethic
4. Use effective time management skills in the production of projects
5. Demonstrate craftsmanship (organization, neatness, precision)
6. Understand and practice the characteristics of basic design principles
7. Understand the creative process and importance of each step
8. Apply appropriate software solutions to design problems
9. Articulate and solve basic problems of form and function
10. Identify and apply the critical thinking process to design challenges
11. Cut accurately using an X-Acto knife and mat knife in a safe manner
12. Understand the value of all tools, equipment, and supplies
13. Demonstrate tool skills through a variety of creative art projects
14. Demonstrate correct use of appropriate adhesives, and chemicals
15. Demonstrate proper inventory and storage of supplies
16. Read and measure accurately with a standard American ruler
17. Demonstrate knowledge of alignment, balance, proportion and use of positive and negative space
18. Demonstrate knowledge of color (primary, secondary, tertiary, complimentary)
19. Demonstrate knowledge of working in mixed media
20. Create vector illustrations to be used in design layouts
21. Utilize work area in a clean organized manner
22. Demonstrate an awareness of art history and how it relates to design and media
23. Understand the creative process and importance of each step
24. Understand of the importance of meeting a deadline

25. Prepare thumbnails, roughs, and comps
26. Demonstrate knowledge of typography, font styles, point size & layout purposes
27. Demonstrate knowledge of basic elements of operation of computers, printers, scanners, and other peripherals such as drawing tablets
28. Demonstrate knowledge of appropriately enlarging and reducing art with copying and printing
29. Demonstrate knowledge of the differences between vector based and pixel based artwork and the appropriate use for each
30. Demonstrate proficiency in Adobe Illustrator including tools, palettes, options and production formats
31. Demonstrate proficiency in Adobe Photoshop including tools, palettes, options and production formats
32. Demonstrate proficiency in Adobe InDesign including tools, palettes, options and production formats
33. Demonstrate proficiency in Using drawing tablets for illustration and digital image composition
34. Demonstrate proficiency in using digital cameras for artwork, layout, and composition in various lighting conditions
35. Understand print versus web resolution
36. Understand difference between RGB, spot color, and CMYK
37. Demonstrate knowledge of setting up research reference files
38. Demonstrate knowledge of the cost of tools of the industry
39. Create and revise of a resume for employment
40. Demonstrate knowledge of the many career opportunities related to graphic design
41. Apply knowledge gained through research of trends & styles into design projects
42. Integrate design concepts with materials, skills, and technology