

MANCHESTER REGIONAL HIGH SCHOOL

P.C. Graphics 2

REVISED  
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## I. Course Description - PC Graphics 2

This full year course is a continuation of PC Graphics 1. The course will focus on the principles of art and design, color theory, typography, editorial/advertising design, promotional design, package design and branding/logo identity. Students will utilize computer programs such as Adobe Photoshop and Illustrator

to create artwork that will be setup for print production and web respectively. Students will be introduced to more complex concepts and techniques of graphic design, illustration and digitized photographic

manipulation. This course will offer students a more sophisticated approach to computer generated design at both the technical and intellectual level. (This course is highly recommended for students who may have an interest in careers in design such as: graphic design, interior design, editorial/publishing design, Fashion design, package design, digital photography, illustration and web design.)

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

### **COURSE DATA:**

Length of Course:	Full Year
Credits:	5
Periods Per Week:	5
Classification:	Elective
Prerequisite:	None

### **EVALUATION:**

The purposes of evaluation are to provide information about student progress and to determine if students have learned the subject matter, which has been taught. Teachers will evaluate student progress by utilizing standardized tests, teacher-made quizzes and tests, oral questioning, class participation, homework, special projects, special exams, and other school records.

### **EVALUATION CRITERIA:**

Evaluation will be based on the following weighted components:

Formal tests .....50%

Effort/Participation .....50%

**Grading structure:** Benchmark for mastery of course content is 65%; content mastery for students with IEPs may be less than the Board of Education approved minimum for regular education students.

## **II. Course Outline and Objectives**

### **UNIT 1: 2D DESIGN FUNDAMENTALS (8.1.12.A.1.A.3)**

*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

### **UNIT 2: CLASSROOM GUIDELINES/SAFETY (8.1.12.0.1) (8.2.12.E.1)**

*Students will:*

1. complete each project following all required criteria as given in job or project description
2. understand why following dimensions and specific instruction in job descriptions are vital for successful completion
3. use appropriate equipment and tools in a safe, proper manner within the assigned job or project deadline
4. understand purpose of overhead projectors for large format projects
5. use proportional scale for figuring proper enlargement/reduction values
6. operate the Xerox printers/copiers safely for enlarging/reducing, scanning and duplicating, using appropriate modes and paper
7. operate and maintain computers and all peripherals (digital camera, scanner, printers)

### **UNIT 3: FOUNDATIONS OF DESIGN (8.1.12.A.1.A.3)**

#### **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
2. learn the effective use of negative and positive space within design elements and layout

## **Section 2: Design and Layout- 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 3: Basic Color- Level 2**

*Students will:*

1. create custom color sets for print and digital design
2. utilize color in an abstract way to communicate an emotional response
3. learn how color affects human behavior ( i.e. decision making)
4. 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 (8.1.12.A.1.A.3)**

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

## **Section 2: Pixel-Based Software (Adobe Photoshop) Level 2**

### *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 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 3: Vector-Based Software (Adobe Illustrator) Level 2**

### *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 4: Page Layout Software (Adobe InDesign) Level1

*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
3. utilize keyboard commands to maximize productivity
4. learn to navigate a multi-page document
5. learn to set rulers, guides and measurements and view options
6. use guides for proper alignment in designs
7. use Contextual Menus and how to customize them
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. import text and auto-flow text
13. use text on a path
14. spellcheck a document
15. import graphics from various formats and understand how to use the Links panel
16. turn image layers on and off
17. learn how to select objects
18. use basic strokes and fills
19. use the Eyedropper tool
20. understand grouping and locking objects
21. learn to align and distribute objects
22. duplicate, scale, mirror and rotate objects
23. apply basic character styling
24. understand paragraph formatting
25. apply character, paragraph and object styles
26. create a table with rows and columns
27. learn how to add, delete and adjust rows and columns
28. create color swatches
29. use gradient swatches and apply gradients
30. export files to different formats such as PDF, JPEG and TIF
31. understand the print dialogue box
32. export printer ready PDF files (with crop marks, registration marks and properly set colors for separation)
33. show proficiency in how to place and properly scale and rotate images
34. utilize columns for text for readability, using text wrap with images if appropriate
35. 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 to size and trim a presentation board
4. know how to mount printed pieces on board using eco-friendly adhesives
5. know how to clean their finished pieces with a kneaded eraser
6. understand how to setup and fold multi-page pieces

## **111. Textbooks, Instructional Materials and Software**

### **Technology:**

- PC based environment with Adobe Creative Suite, latest version (Photoshop, Illustrator)
- Computer projector with wall mounted screen for teacher instruction
- Microsoft Internet Explorer/ Google Chrome
- Microsoft Office (Word, PowerPoint)
- Wacom 4 drawing tablets
- Wacom Cintiq digital drawing display
- Digital cameras
- Black & White and color copiers
- Scanner
- Laser printers

### **Tools of the trade:**

- Rulers, T-squares & triangles
- Sketch pads
- Various paper stocks
- colored pencils
- markers
- Rubber cement, tape, StudioTac adhesive
- Paper cutter

## **IV. Evaluation**

*Students are evaluated using the following criteria:*

1. Weekly Work Grade (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. Accuracy in meeting project criteria
5. Meeting deadlines (deductions apply to all late projects)
6. Portfolio Set up



## 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	IDR	IDR	IDR	IDR
Demonstrate knowledge of digital file organization and archiving	ID	R	R	R
Demonstrate a professional work ethic	I		DR	DR
Use effective time management skills in the production of projects	ID		DR	R
Demonstrate craftsmanship (organization, neatness, precision)	10	IDR	IDR	IDR
Understand and practice the characteristics of basic design principles	I	R	R	R
Understand the creative process and importance of each step	I	D	IDR	IDR
Apply appropriate software solutions to design problems	I	D	DR	R
Articulate and solve basic problems of form and function	I	D	DR	DR
Identify and apply the critical thinking process to design challenges	I	DR	DR	DR
Understand the value of all tools, equipment, and supplies	I	10	IDR	IDR
Demonstrate tool skills through a variety of creative art projects	I	D	R	R
Demonstrate knowledge of alignment, balance, proportion and use of positive and negative space	I	ID		IDR
Demonstrate knowledge of color (primary, secondary, tertiary, complimentary)	I	D		IDR
Demonstrate knowledge of working in mixed media.	I	ID		IDR
Create vector illustrations to be used in design layouts	I	ID	ID	IDR
Utilize work area in a clean organized manner.	IDR	IDR	IDR	IDR
Demonstrate an awareness of art history and how it relates to design and media	I	D		IDR
Understand the creative process and importance of each step	I	D		IDR
Understand of the importance of meeting a deadline	IDR	IDR	IDR	IDR
Demonstrate knowledge of documentation of design time and understanding Commercial worth of the profession		I	ID	IDR

Prepare thumbnails, roughs, and comps	I	IDR	DR	IDR
Demonstrate knowledge of typography, font styles, point size & layout purposes	I	ID	IDR	IDR
Create and understand purpose of logo(s) to brought through on other projects. Ex. Stationary, ad, package, etc.		I	ID	IDR
Demonstrate knowledge of package design				IDR
Demonstrate knowledge of basic elements of operation of computers, printers, scanners	IDR	IDR	IDR	IDR
Demonstrate knowledge of appropriately enlarging and reducing art with copying and printing	ID	IDR	IDR	IDR
Demonstrate knowledge of the differences between vector based and pixel based artwork and the appropriate use for each	I	D	IDR	IDR
Demonstrate proficiency in Adobe Illustrator including tools, palettes, options and production formats	I	DR	IDR	IDR
Demonstrate proficiency in Adobe Photoshop including tools, palettes, options and production formats	I	DR	IDR	IDR
Demonstrate proficiency in Adobe InDesign including tools, palettes, options and production formats	I	DR	IDR	IDR
Demonstrate proficiency in using drawing tablets for illustration and digital image composition	I	D		IDR
Demonstrate proficiency in using digital cameras for artwork, layout, and composition in various lighting conditions	I	ID		IDR
versus web resolution				-----
	I	IDR	IDR	
Understand difference between RGB, spot color, and CMYK	I	IDR	IDR	IDR
Demonstrate knowledge and purpose of copyrighted images, Royalty Free images, the Fair Use Act and their rights and/or limitations		I	R	IOR
Mount & Mat artwork in a professional manner		I	ID	IDR
Demonstrate knowledge of setting up research reference files	I	ID		IDR
Demonstrate knowledge of the cost of tools of the industry	I	I	DR	DR
Create and revise of a resume for employment	I			IOR
Demonstrate knowledge of the many career opportunities related to graphic design	I	ID	IDR	IDR
Apply knowledge gained through research of trends & styles into design projects	I	ID	R	R
Integrate design concepts with materials, skills, and technology	I	10	R	R
Develop ability to critique, defend, & support the integrity of a chosen project		ID	R	R
Relate printing terms, concepts, & processes to the prep of digital documents		I	ID	IDR
Assess personal strengths and weaknesses		I	D	R
Assemble a final portfolio with a variety of design projects		I		DR

Present art portfolio in a professional manner

ID IDR