

## Class: Digital Imaging and Design II

Curriculum Area: Visual Art & Design	Course Length: 1 Term
Course Title: Digital Imaging and Design II	Date last reviewed: December 5, 2017
Prerequisites: Digital Imaging and Design I	Board approval date: June 16, 2015

### Desired Results

#### Course Description and Purpose:

This course will build upon the foundations gained in Digital Imaging and Design I. Students, through a personalized learning approach, will gain in depth knowledge and skills in multiple areas of the imaging fields including digital photography, illustration and page layout. Student's skills in the creation and modification of raster and vector based graphics will be refined. Multiple output and publishing solutions will be explored. A fee is charged for materials used in projects.

<p><b>Enduring Understandings (EUs):</b> The student will understand that...</p> <ol style="list-style-type: none"><li>1. Media arts ideas, works, and processes are shaped by the imagination, creative processes, and by experiences, both within and outside of the arts.</li><li>2. Media artists plan, organize, and develop creative ideas, plans, and models into process structures that can effectively realize the artistic idea.</li><li>3. The forming, integration, and refinement of aesthetic components, principles, and processes creates purpose, meaning, and artistic quality in media artworks. Storytelling through digital and visual means is a powerful and effective method of communicating a message to an audience.</li><li>4. Media artists integrate various forms and contents to develop complex, unified artworks.</li><li>5. Media artists require a range of skills and abilities to creatively solve problems within and through media arts productions.</li></ol>	<p><b>Essential Questions (EQs):</b></p> <ol style="list-style-type: none"><li>1. How do media artists generate ideas? How can ideas for media arts productions be formed and developed to be effective and original?</li><li>2. How do media artists organize and develop ideas and models into process structures to achieve the desired end product?</li><li>3. What is required to produce a media artwork that conveys purpose, meaning, and artistic quality? How do media artists improve/refine their work?</li><li>4. How are complex media arts experiences constructed?</li><li>5. What skills are required for creating effective media artworks and how are they improved? How are creativity and innovation developed within and through media arts productions? How do media artists use various tools and techniques?</li><li>6. How does time, place, audience, and context affect presenting or performing choices for media artworks? How can presenting or sharing media artworks in</li></ol>
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<ol style="list-style-type: none"> <li>6. Media artists purposefully present, share, and distribute media artworks for various contexts.</li> <li>7. Interpretation and appreciation require consideration of the intent, form, and context of the media and artwork.</li> <li>8. Skillful evaluation and critique are critical components of experiencing, appreciating, and producing media artworks.</li> <li>9. Media artworks synthesize meaning and form cultural experience.</li> <li>10. Media artworks and ideas are better understood and produced by relating them to their purposes, values, and various contexts.</li> </ol>	<p>a public format help a media artist learn and grow?</p> <ol style="list-style-type: none"> <li>7. How do people relate to and interpret media artworks?</li> <li>8. How and why do media artists value and judge media artworks? When and how should we evaluate and critique media artworks to improve them?</li> <li>9. How do we relate knowledge and experiences to understanding and making media artworks? How do we learn about and create meaning through producing media artworks?</li> <li>10. How does media arts relate to its various contexts, purposes, and values? How does investigating these relationships inform and deepen the media artist's understanding and work?</li> </ol>
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**Assessment Evidence:**

<p>Performance assessment: Project based assessments will be used in all units to assess student mastery. In addition other performance assessments will include portfolios, performance tests and journals.</p>	<p>Other assessments:</p> <ul style="list-style-type: none"> <li>● oral presentations</li> <li>● journals</li> <li>● self &amp; peer assessment tools</li> <li>● (rubric/checklists rating scales)</li> <li>● demonstrations</li> <li>● paper-and-pencil tests</li> <li>● laboratory reports</li> <li>● portfolio analysis</li> </ul>
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<p><b>UNITS</b></p>
<ol style="list-style-type: none"> <li>1. Review of image creation and editing software</li> <li>2. Advanced photography</li> <li>3. Graphic design for publication and presentation</li> <li>4. Advanced vector image creation and editing</li> <li>5. Advanced raster image creation and editing</li> <li>6. Video and animated digital graphics</li> <li>7. Output - reproduction and marketing</li> </ol>

**Unit 1: Review of image creation and editing software**

1. Photography and image capture
2. Raster image processing - Photoshop
3. Vector image processing and creation - Illustrator
4. Communication model and process

**Standards:**

**Anchor Standard 11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding**

MA:Cn11.1.Ib: Critically evaluate and effectively interact with legal, technological, systemic, and vocational contexts of media arts, considering ethics, media literacy, social media, virtual worlds, and digital identity

**Anchor Standard 1: Generate and conceptualize artistic ideas and work.**

MA:Cr1.1.II: Strategically utilize generative methods to formulate multiple ideas, refine artistic goals, and increase the originality of approaches in media arts creation processes.

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CCSS.ELA-Literacy.SL.9-10.4

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

CCSS.ELA-LITERACY.RST.11-12.7

Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

**Learning Targets Addressed:**

I can...

- plan, design and produce a product containing aspects including input, image processing and output as they relate to a digital image.
- differentiate and apply the parts of the communication process/model to a design and create an image employing them.
- justify the correct application of various input devices (cameras, scanners, etc.) to capture an image.
- manipulate and process an image using industry standard image processing software.
- assess safety hazards in the workplace.

**Unit 2: Advanced Photography**

1. Composition Review
  - a. Rule of thirds
  - b. Framing
  - c. Simplicity
  - d. Leading Lines
  - e. Repetition
  - f. Symmetry (balance)
2. Single Lens Reflex Camera Operation
  - a. Aperture
  - b. Shutter
  - c. ISO
  - d. Focus
  - e. Lens Choice
3. Lighting
  - a. Studio and artificial light
  - b. Extended Shutter
  - c. Lighting for mood and emotion
  - d. Ambient and available light
4. Photographic Retouching
  - a. Ethics
    - i. News
    - ii. Art
  - b. Digital Workflow
    - i. File management and backup
    - ii. Non-destructive editing
    - iii. Color correction
    - iv. Exposure correction
    - v. Retouching
    - vi. Special effects
    - vii. Saving for output

**Standards:**

**Anchor Standard 3: Refine and complete artistic work.**

VA:Cr2.1.IIa: Through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in a chosen art form.

MA:Cr3.1.Ib: Refine and modify media artworks, honing aesthetic quality and intentionally accentuating stylistic elements, to reflect an understanding of personal goals and preferences.

**Anchor Standard 4: Select, analyze, and interpret artistic work for presentation.**

MA:Pr4.1.II: Integrate various arts, media arts forms, and academic content into unified media arts productions that retain thematic integrity and stylistic continuity, such as transmedia productions.

**Anchor Standard 5: Develop and refine artistic techniques and work for presentation.**

MA:Pr5.1.Ib: Demonstrate effective ability in creative and adaptive innovation abilities, such as

resisting closure, and responsive use of failure, to address sophisticated challenges within and through media arts productions.

**Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.**

MA:Cn10.1.IIa: Synthesize internal and external resources to enhance the creation of persuasive media artworks, such as cultural connections, introspection, research, and exemplary works.

CCSS.ELA-LITERACY.RST.11-12.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11-12 texts and topics*.

CCSS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

**Learning Targets:**

I can...

- compose a quality photo by integrating at least six composition techniques
- effectively apply the three components of the exposure triangle to produce an image with an single lens reflex camera (ISO, shutter, aperture)
- manipulate light, available or artificial, to produce a quality photographic image
- ethically retouch a photograph using image editing software

**Unit 3: Advanced Graphic Design**

1. Review
  - a. Language of graphic design
  - b. Color theory concepts and terminology
  - c. Color systems (RGB,CMYK,Pantone): applications
  - d. Two-dimensional imaging concepts of composition and aesthetics
2. Advanced Typography
  - a. Measurement
  - b. Special Effects
  - c. Leading and Kerning
  - d. Readability
  - e. Fonts & Typefaces
3. Layers and applications
  - a. Overlays
  - b. Textures
  - c. Advanced technique

**Standards:**

**Anchor Standard 3: Refine and complete artistic work.**

VA:Cr2.1.IIa: Through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in a chosen art form.

MA:Cr3.1.IIa: Consolidate production processes to demonstrate deliberate choices in organizing and integrating content and stylistic conventions in media arts production, demonstrating understanding of associated principles, such as continuity and juxtaposition.

**Anchor Standard 5: Develop and refine artistic techniques and work for presentation.**

MA:Pr5.1.IIa: Demonstrate effective command of artistic, design, technical and soft skills in managing and producing media artworks.

MA:Pr5.1.IIc: Demonstrate the skillful adaptation and combination of tools, styles, techniques, and interactivity to achieve specific expressive goals in the production of a variety of media artworks.

**Anchor Standard 6: Convey meaning through the presentation of artistic work.**

MA:Pr6.1.IIa: Curate and design the presentation and distribution of collections of media artworks through a variety of contexts, such as mass audiences, and physical and virtual channels.

**Anchor Standard 7: Perceive and analyze artistic work**

MA:Re7.1.IIa: Analyze and synthesize the qualities and relationships of the components in a variety of media artworks, and feedback on how they impact audience.

**Anchor Standard 11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.**

MA:Cn10.1.IIa: Examine in depth and demonstrate the relationships of media arts ideas and works to various contexts, purposes, and values, such as markets, systems, propaganda, and truth.

CCSS.ELA-Literacy.W.9-10.6

Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

CCSS.ELA-LITERACY.RST.11-12.7

Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

CCSS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

**Learning Targets:**

I can:

- create a poster promoting a cause entirely in type.

- apply color models and schemes to graphic design
- employ the design methods of unity, rhythm, proximity, balance, to a personally designed product.
- create a designed product that has artistic merit and worth.
- apply the communication model/process to my work.

#### Unit 4: Advanced Vector Image Creation and Editing: ADOBE ILLUSTRATOR

1. Software fundamentals: Adobe Illustrator (Base knowledge, covered in introductory class listed in RED below. Advanced skills in black)
2. Digital drawing/illustration, image creation
3. File management/encoding

#### Standards:

##### **Anchor Standard 5: Develop and refine artistic techniques and work for presentation.**

MA:Pr5.1.IIc: Demonstrate the skillful adaptation and combination of tools, styles, techniques, and interactivity to achieve specific expressive goals in the production of a variety of media artworks.

##### **Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.**

MA:Cn10.1.IIa: Synthesize internal and external resources to enhance the creation of persuasive media artworks, such as cultural connections, introspection, research, and exemplary works.

##### CCSS.ELA-Literacy.SL.9-10.4

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

##### CCSS.ELA-Literacy.SL.9-10.4

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

##### CCSS.ELA-LITERACY.RST.11-12.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11-12 texts and topics*.

##### CCSS.ELA-LITERACY.RST.11-12.7

Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

##### CCSS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

### **Learning Targets:**

#### **Adobe Illustrator Tasks (Tied to Adobe Certification Exam)**

##### **I can navigate the Illustrator workspace in order to create images.**

###### Navigating the Workspace

- Customizing the workspace
- Using multiple artboards
- Utilizing rulers, grids, guides, and crop marks

##### **I can create elaborate and advanced level drawing using Adobe Illustrator**

###### Drawing

- Drawing basics
- Creating shapes
- Drawing pixel-aligned paths for web workflows
- Drawing with the Pencil tool
- Drawing with the Pen tool
- Editing paths
- Applying a gradient to a stroke
- Perspective drawing
- Tracing artwork with Live Trace
- Using Image Trace
- Working with symbols
- Working with symbolism tools and sets

##### **I can creatively use color and color schemes with Adobe Illustrator**

###### Working with Color

- Selecting color
- Using and creating swatches
- Adding colors from artwork to the Swatches panel
- Working with Color Groups
- Using the Kuler panel
- Adjusting color
- Working with Pantone Plus color libraries

##### **I can create advanced images using the painting tools in Illustrator**

###### Painting

- Painting with fills and strokes
- Working with Live Paint groups
- Creating and using brushes
- Working with transparency and blending modes
- Creating and using gradients
- Creating and using meshes
- Creating and using patterns

##### **I can create and manipulate type for graphic design in Adobe Illustrator**

###### Working with Type

- Creating type on a path



- Scaling and rotating type
- Working with fonts
- Formatting type
- Adjusting line and character spacing
- Formatting paragraphs
- Creating and applying character and paragraph styles

**I can apply special effects to vector based images in Adobe Illustrator**

Creating Special Effects

- Creating and using appearance attributes
- Working with effects
- Creating and applying drop shadows, glows, and feathering
- Creating and applying graphic styles

**I can animate an image for the web using Adobe Illustrator**

Working with Web Graphics

- Creating web graphics
- Utilizing slices and image maps
- Utilizing SVG
- Creating animations

**I can prepare images for a variety of output methods using Illustrator**

Printing

- Setting up documents for printing
- Printing color separations
- Working with printer and bleed marks
- Printing gradients, meshes, and color blends
- Printing and saving transparent artwork
- Overprinting
- Trapping
- Using print presets

**Unit 5: Advanced Raster Image Creation and Editing: Adobe Photoshop**

1. Software fundamentals: Adobe Photoshop (Base knowledge, covered in introductory class listed in RED below)
2. Image creation
3. Digital image capture fundamentals
  - a. scanning
4. File management/encoding
5. Image compositing/collage/montage

**Standards:**

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**Anchor Standard 4: Select, analyze, and interpret artistic work for presentation.**

VA:Pr4.1.IIa: Analyze, select, and critique personal artwork for a collection or portfolio presentation

MA:Pr4.1.II: Integrate various arts, media arts forms, and academic content into unified media arts productions that retain thematic integrity and stylistic continuity, such as transmedia productions

**Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.**

MA:Cn10.1.IIa: Synthesize internal and external resources to enhance the creation of persuasive media artworks, such as cultural connections, introspection, research, and exemplary works

**CCSS.ELA-Literacy.SL.11-12.4**

Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

**CCSS.ELA-Literacy.SL.9-10.4**

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

**CCSS.ELA-LITERACY.RST.11-12.9**

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

**Learning Targets:**

**Adobe Photoshop Tasks (Tied to Adobe CS6 Certification Exam)**

**I can use Adobe Bridge to as a file management tool within and across the Adobe product line.**

Managing Assets Using Adobe Bridge

- Navigating between Adobe Bridge and your computer
- Working with metadata
- Organizing collections
- Outputting projects to PDF and for the web
- Automating multiple images in Bridge

**I can create and modify camera raw images within Adobe Photoshop.**

Using Camera Raw

- Basic single image adjustment
- Selective image corrections
- Batch processing and editing
- Understanding Process Version and workflow options
- Automating multiple images

I can navigate Photoshop and understand the application of all of its tools.

Understanding Photoshop Fundamentals

- Navigating the Photoshop workspace

- Importing and exporting presets
- Resetting sliders and options
- Using tool groups and options

### **I can create and isolate a selection using masks and layers within Adobe Photoshop**

#### Understanding Selections

- Creating selections using appropriate tools
- Adding and subtracting from selections
- Quick Mask usage
- Using Refined Edge

#### Understanding Layers

- Creating and organizing layers
- Understanding the differences between raster and vector layers
- Understanding layer masks
- Searching for layers
- Understanding layer groups
- Understanding layer blend modes

### **I can adjust an image for color, tonal range, curves and levels with Adobe Photoshop.**

#### Understanding Adjustments

- Differentiating between adjustment types
- Using TAT, clipping, and visibility
- Refining masks on adjustments

### **I can successfully edit an image using the tools with Adobe Photoshop to transform an image.**

#### Editing Images

- Working with the retouching tools
- Working with Liquify
- Using the transform controls
- Using the Puppet Warp
- Using the Clone Source tool
- Creating panoramas
- Using HDR Pro
- Creating speciality images (black and white and duotone)
- Selecting color

### **I can apply character and paragraph styles to work in a production setting in Adobe Photoshop.**

#### Working with Design and Print Production

- Using character and paragraph styles
- Using vector shapes
- Working with layer comps
- Creating frame based animations
- Working with layer styles

### **I can create a simple animation and video sequence within Adobe Photoshop**

#### Working with Video

- Ingesting video into Photoshop
- Cutting and trimming video
- Creating transitions within clips
- Adding design elements into video

- Exporting and publishing video
  - Using LUT adjustments for style
- Outputting for Web, Print, and Mobile
- Differentiating between file types
  - Using Save For Web
  - Using the Print dialog

## Unit 6: Video and Animated Computer Graphics

1. Animation
  - a. Animated GIFS
  - b. Frame by frame
2. Stop Motion
3. Time Lapse Photography
4. Video
5. Video Editing
  - a. Audio
  - b. Video
  - c. Text
  - d. Transitions

### Standards:

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#### **Anchor Standard 5: Develop and refine artistic techniques and work for presentation.**

MA:Pr5.1.IIa: Demonstrate effective command of artistic, design, technical and soft skills in managing and producing media artworks.

MA:Pr5.1.IIc: Demonstrate the skillful adaptation and combination of tools, styles, techniques, and interactivity to achieve specific expressive goals in the production of a variety of media artworks.

#### **Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.**

MA:Cn10.1.IIa: Synthesize internal and external resources to enhance the creation of persuasive media artworks, such as cultural connections, introspection, research, and exemplary works.

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CCSS.ELA-Literacy.SL.9-10.4

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

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### Learning Targets:

I can:

- plan a coherent a story including script and storyboard
- produce a frame-by-frame animated GIF in Photoshop
- compose, light and shoot a quality frame by frame stop motion or animated video
- edit video including audio, text, video clips, transitions and output in a variety of formats.

## Unit 7: Output - Reproduction and Marketing

1. Vector Cutting
  - a. Vinyl
  - b. Laser-digital laser material processing technology
  - c. CNC
2. Raster Output
  - a. Inkjet
  - b. Laser
3. Mass Reproduction
  - a. Offset (other - RISO, Xerography)
  - b. Screen
  - c. Flexography
  - d. Other
4. Digital Output
  - a. Web
  - b. Device
  - c. Video
  - d. Multimedia
  - e. Game

### Standards:

#### **Anchor Standard 4: Select, analyze, and interpret artistic work for presentation.**

VA:Pr4.1.IIa: Analyze, select, and critique personal artwork for a collection or portfolio presentation

MA:Pr4.1.II: Integrate various arts, media arts forms, and academic content into unified media arts productions that retain thematic integrity and stylistic continuity, such as transmedia productions

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CCSS.ELA-LITERACY.RST.11-12.9

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### **Learning Targets**

I can . . .

- identify the critical components required for a major project.
- work with a team to identify the strengths and weaknesses of each member.
- create a balanced allocation of project tasks for each member based on their skills.
- create a method for tracking progress and communicating items among team members.
- develop a solution to a defined problem.
- summarize what will be done to arrive at a working prototype for a given problem.