



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

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Unit	Course Standards and Objectives	Content	Skills	Vocabulary
District Basic Digital Media I (11.0210) (District) 2014-2015 Collaboration	<p>Std 02 CompFunc- Ethics (Week 1, 2 Weeks)</p> <p>UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I</p> <p>Standard 2</p> <p>Digital Media Computer Functions: Students will demonstrate the ability to perform common computer functions on a standard platform (PC, Mac, Linux) as they apply to digital media.</p> <ul style="list-style-type: none">▪ Objective 1 Perform basic computer functions.<ul style="list-style-type: none">a. Utilize the Clipboardb. Utilize shortcut keys and quick-stroke commands where applicable in software applications and OS to improve performance.c. Convert and compress files using appropriate codecd. Create back up filese. Monitor file size and disk spacef. Utilize asset management using folders, naming conventions, etc.▪ Objective 2 Implement problem solving skills<ul style="list-style-type: none">a. Consult with Teammatesb. Search software help menusc. Utilize Internet searchesd. Utilize other appropriate sources▪ Objective 3 Understand and discuss the components of a basic digital media computer system and peripherals.<ul style="list-style-type: none">a. Identify, describe and use various input devicesb. Identify, describe and use various output devices▪ Objective 4	<p>Access and run programs</p> <p>Open, Create, Save & Save As on files</p> <p>File Management</p> <p>File Etiquette</p> <p>Parts of Computers</p> <p>User Interface</p>	<p>Access and run programs</p> <p>Open, Create, Save & Save As on files</p> <p>File Management</p> <p>File Etiquette</p> <p>Parts of Computers</p> <p>User Interface</p>	<p>Firewire</p> <p>USB</p> <p>Multitask</p> <p>RAM</p> <p>Resolution</p> <p>Storage devices</p> <p>Input Devices</p> <p>CD-Rom</p> <p>Output devices</p> <p>byte-Terabyte</p> <p>Software Licenses</p> <p>Copyrights</p> <p>Freeware</p> <p>Shareware</p> <p>Site-License</p> <p>Open Source</p> <p>Fair-Use Copyright Amounts</p> <p>Fair-Use 4</p>

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|---|-------------------------------------|
| <p>Follow and adhere to the school's acceptable use policy (AUP).</p> <p>a. Read and discuss the school's acceptable use policy</p> <p>b. Follow and adhere to the school's acceptable use policy.</p> <ul style="list-style-type: none"> ▪ Objective 5
Fair Use Guidelines and Copyright Law <ul style="list-style-type: none"> a. Understand Fair Use Guidelines as it applies to classroom use b. Explain and justify appropriate application of Fair Use Guidelines c. Understand ideas taken to create a tangible product have a copyright linked to the creator, or company, and the property d. Understand the process of registering a copyright on intellectual property e. Create a project using all original content, public domain, or licensed media, thereby adhering to all copyright laws and not involving Fair Use Guidelines | <p>Compression</p> <p>Clipboard</p> |
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Std 05 2D Graphics Obj
01 Raster 
 (Week 2, 8 Weeks) >

UT: CTE: Information Technology, UT:
 Grades 9-12, Digital Media I
 Standard 5
 2D Graphics: Students will produce bitmap and vector 2D graphics.

- Objective 1
 Raster Graphics — Students will create, manipulate and appropriately use bitmap (raster) graphics
 - a. Identify graphic formats and their appropriate use (e.g., JPG, GIF, TIF, BMP, PSD, PNG, PDF, EPS, etc.)
 - b. Acquire image assets (scanning, digital camera, internet search, stock sources, etc)
 - c. Create images using a digital camera using appropriate settings
 - d. Utilize appropriate visual
- File Formats: jpg, gif, tif, bmp, psd, png, pdf
- Acquiring Images
- Scanning
- Digital Camera
- Downloading
- Creating original images
- Crop, resize, straighten, Transform
- Layers
- Masks
- Selections
- Filters/Effects/Layer Styles
- Gradient
- **Transparency**
- **Restore Images**
- **Painting & Drawing tools**
- **Text**
- **Clone Tool**
- **Color Adjustments (Brightness/Contrast/Hue)**
- Critique raster images
- Produce a raster image
- Combine multiple raster images to create a finished product
- Generate a restored image
- Construct a complex raster image using layers and tools
- Anti-Aliasing
- DPI/PPI
- Bitmap/Raster
- Scanning Settings
- CMYK
- RGB
- Transparency
- Stock Photography
- Resolution
- Masking
- Layering
- Compositing
- Digital processing
- Gradient
- Filters

design and image composition techniques

- e. Export/import images for project requirements (compression, resolution)
- f. Crop, Resize, Straighten Image, Transform an image
- g. Utilize techniques to effectively edit an image
- h. Use Layers, Mask, and Selections
- i. Apply Filters and Effects
- j. Adjust color, contrast
- k. Create Gradient
- l. Apply Transparency
- m. Restore Images
- n. Utilize Color selection techniques
- o. Use Painting and drawing tools
- p. Use others – editing tools and techniques

■ CMYK vs RGB

Std 03 Visual Design Obj 02  (Week 3, 3 Weeks) >	UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I Standard 3 Visual Design Concepts: Students will recognize and apply effective visual design concepts	Color Properties (Hue, Saturation, Value) Color Schemes (Complimentary, Analogous, Triadic, Monochromatic) Symbolism/Emotion (Warm/Cool) Color Modes (RGB, CMYK, Grayscale)	Design a color scheme for a project	Contrast
				Color
				Hue
				Saturation
				Value
				Complimentary
				Color Scheme
				Analogous
				Triadic
				Monochromatic
				Warm Colors
				Cool Colors

			RGB
			CMYK
			Grayscale
Std 03 Visual Design Obj 01  Elements (Week 5, 3 Weeks) >	UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I Standard 3 Visual Design Concepts: Students will recognize and apply effective visual design concepts	Principles of Design – makes it look good <ul style="list-style-type: none">▪ Balance▪ Emphasis▪ Symmetrical (Formal)▪ Asymmetrical (Informal)▪ Contrast/Value▪ Unity▪ Rhythm▪ Proportion (Comparison) Elements of Design – things that are needed to physically create a design <ul style="list-style-type: none">▪ Line▪ Shape▪ Texture▪ Color▪ Mass/Size▪ Space (positive & negative)	Utilize the principles and element of design to create a project
Std 03 Visual Design Obj 03  Composition (Week 7, 3 Weeks) >	UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I Standard 3 Visual Design Concepts: Students will recognize and apply effective visual design concepts	<ul style="list-style-type: none">▪ Simplicity▪ Leading lines▪ Rule of 3rds▪ Resolution▪ Lighting▪ Point of View▪ Field of View▪ mergers▪ framing	Create an image using proper image composition

in image composition

**Std 05 2D
Graphics Obj**
02 Vectors
 (Week 10, 8 Weeks) >

UT: CTE: Information Technology, UT:
Grades 9-12, Digital Media I
Standard 5
2D Graphics: Students will produce
bitmap and vector 2D graphics.

- Objective 2
Vector Graphics — create, manipulate and appropriately use vector graphics
 - a. Identify graphic formats and their appropriate use (e.g., PDF, AI, SWF, PNG, EPS, etc.)
 - b. Convert images from bitmap to vector and vice versa
 - c. Export/import images for project requirements (compression, resolution)
 - d. Utilize drawing tools to create and manipulate Paths (lines and Bezier Curves) using Anchor points, direction handles
 - e. Apply Stroke and Fill (solid and gradient)
 - f. Utilize appropriate selection tools
 - g. Perform grouping and ungrouping of objects
 - h. Apply Styles and Effects
 - i. Transform objects
 - j. Create Layers
 - k. Apply transparency
 - l. Utilize Text Tools
 - m. Others – This is not a comprehensive list
- **File formats: ai, pdf, swf, eps, png, svg**
- **Convert between bitmap/vector**
- **Export/Import**
- **Drawing Tools**
- **Pen tool (Bezier Curvers, anchor points, direction handles)**
- **Selection tools**
- **Grouping/Ungrouping**
- **Styles/Effects**
- **Transform**
- **Layers**
- **Transparency**
- **Text tools**
- Critique vector graphics
- Produce a vector graphic
- Construct a vector graphic using layers and tools
- Demonstrate understanding of paths, anchor points and bezier curves
- Vector
- anchor points
- handles
- Bezier Curve
- paths
- stroke
- curves
- fill
- gradients
- DPI/PPI
- CMYK
- RGB

Std 04 Text
 (Week 12, 2 Weeks) >

UT: CTE: Information Technology, UT:
Grades 9-12, Digital Media I
Standard 4
Text: Students will effectively use text in digital media.

- Objective 1
Typography — recognize and apply the following concepts:
 - a. Apply Font decisions (typeface/families, style/attributes, size)
 - b. Apply Typeface Design (serif,

Typography

- Font Appropriateness – using an appropriate font for the design, styles, attributes, size, etc
- Typeface Design – serif, sans-serif, decorative, script
- Text Layout – leading, kerning, tracking, alignment

Readability

- Readability – correct spelling & grammar

Compose a project using the appropriate typeface design and layout.

- Styles
- Serif
- Sans-Serif
- Decorative/Novelty
- Script

- sans-serif, decorative, script)
 - c. Apply Text Layout
 - Techniques (leading, kerning, tracking, alignment symmetric and asymmetric)
 - Objective 2
 - Communication - demonstrate and use skills
 - a. Demonstrate oral communication skills
 - b. Demonstrate written communication skills
 - Objective 3
 - Readability — Use text format to effectively communicate content
 - a. Utilize correct spelling and grammar
 - b. Utilize proper organization (Headings, indents, bullets, interface, navigation, etc.)

Std 01
Careers 
(Week 14, 2 Weeks) 

UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I

Standard 1

Career Opportunities: Students will develop an awareness of digital media career opportunities.

- Objective 1
- Develop career awareness related to working in the digital media industry.
 - a. Identify occupations related to digital media careers (graphic/commercial artist, project manager, technical writer, application programmer, video and sound specialist, and subject matter expert, instructional designers, art director, copy-writer, etc.)
 - b. Develop a realistic Student Education Occupation Plan (SEOP) using Career Pathways as a guide
 - c. Develop employability competencies/characteristics: responsibility, dependability, ethics, respect, and cooperation
 - d. Exhibit high standards of personal performance with a

- Organization – headings, indents, bullets, etc
 - Leading
 - Kerning
 - Tracking

Identify related careers: graphic artist, web designer, programmer, video/sound specialist, instructional designer, art director, technical writer, project manager, subject matter expert, copy-writer

Employability Characteristics: responsibilities, dependability, ethics, respect, and cooperation, work ethic, attitude

Graphic Artist

Web Designer

Programmer

Video/Sound Specialist

Instructional Designer

Art Director

Technical Writer

Copy Writer

Project Manager

Subject Matter Expert (SME)

Alpha Test

Beta Test

positive work ethic and attitude

Prototype

Target Audience

Delivery Medium

Amplitude

Audio Files

Frequency

Hertz

Sampling Rate

Fade In

Fade Out

Voice-Over

Sound Effects

Metadata

Audio Envelop

Microphone

Streaming

Decibels

Bit rate

Timbre

Wave form

Clipping

Tempo

Foley

Std 06 (10)



(Week 18, 4 Weeks)

UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I Standard 10
Digital Audio: Students will plan, produce, edit, and publish digital audio.

- Objective 1
Plan and create digital audio
 - a. Prepare a script and record digital audio
 - b. Capture sound from an original or existing source
 - c. Recognize and use appropriate types of sound (voice over/harration, music, sound effects)
- Objective 2
Edit digital audio
 - a. Edit sound
 - b. Apply special effects to audio files
 - c. Create audio envelops
 - d. Manipulate pitch, sampling rate, amplitude
- Objective 3
Export and publish digital audio
 - a. Identify audio formats (e.g., WAV, MID, AU, MP3, AIF, RA, AAC, MP4, M4A, M4B, etc.)
 - b. Add appropriate metadata
 - c. Import, Export, and convert audio in different formats (Radio, CD quality)
 - d. Publish an audio project

- **Write a script (narration) or list of needed sounds**
- **Capture Audio**
- **Types of sound (voice over/narration, music, sound effects)**
- **Edit Sound (pitch, sampling rate, amplitude, import, work with multiple tracks, export, convert)**
- **Audio Quality (input quality/output quality)**
- **Create/manipulate the sound in a video (audio envelop)**
- **Identify audio formats (mid, wav, mp3, aif, m4a)**
- **Publish an audio project**

- Compose an original audio production using multiple audio sources

Prototype

Target Audience

Delivery Medium

Amplitude

Audio Files

Frequency

Hertz

Sampling Rate

Fade In

Fade Out

Voice-Over

Sound Effects

Metadata

Audio Envelop

Microphone

Streaming

Decibels

Bit rate

Timbre

Wave form

Clipping

Tempo

Foley

Std 08

Animation
(Week 22, 6 Weeks)

UT: CTE: Information Technology, UT:
Grades 9-12, Digital Media I
Standard 8
2D Animation — Students will produce
and utilize 2D animation.

- Objective 1
 - Animations — Create, manipulate and appropriately use animations.
 - a. Identify animation file formats and their appropriate use (e.g., MOV, SWF, GIF, FLA, WMV, m4v, etc.)
 - b. Perform changes to position, scale, color, and properties of an animated object
 - c. Utilize Timeline animation (Frame-by-frame, Tween)
 - d. Create Keyframe animation
 - e. Create Tween Animation (motion, shape, path)
 - f. Utilize Symbol/Instances
 - g. Use internal and external libraries
 - h. Import/Export assets
 - i. Publish/Packaging appropriately for delivery medium
 - Objective 2
 - Animation Techniques — Effectively use animation techniques
 - a. Recognize and apply major principles of animation (squash and stretch, anticipation, timing, etc.) [see 12 principles of animation]
 - b. Effectively use storytelling techniques
 - c. Include appropriate audio

- File Formats
 - Fla, swf, gif
- Perform changes to position, scale, color, and properties of an animated object
- Utilize Timeline animation (Frame-by-frame, Tween, keyframe)
- Utilize Symbol/Instances/Library (import)
- Publish/Export for appropriate medium
- Recognize and apply the 12 Principles of Animation (walk cycle, ball bounce)
- Basic storytelling (beginning, middle, end)
- Include appropriate audio
- Create a 2D animation with sound
- Instance
- Symbol
- Frame Rate
- Keyframe
- Frame-by-Frame
- Motion Tween
- Shape Tween
- Path Tween
- Tweening
- Publish
- Sound Effects
- The 12 Principles of Animation:
 1. Squash and Stretch
 2. Anticipation
 3. Staging
 4. Straight ahead and pose-to-pose
 5. Follow-through and overlapping
 6. Slow-in and Slow-out
 7. Arcs
 8. Secondary Action



(Week 28, 7
Weeks)



Std 09 Video

UT: CTE: Information Technology, UT:
Grades 9-12, Digital Media I
Standard 9
Digital Video: Students will plan, create,
edit, and publish digital video.

- Objective 1
Plan Pre-Production of creating
digital video
 - a. Utilize a script
 - b. Create a Budget
 - c. Create a storyboard
 - d. Build a shot plan
 - e. Create an asset list
 - f. Define necessary cast
 - g. Adhere to Fair Use for
classroom projects and
copyright for all student
published work
 - h. Define team member roles
 - i. Organize "field shoot" and
assign "field shoot" roles
(Gaffer, Grip, Camerman,
Director, Anchor etc.)
- Objective 2
Production stage of creating
digital video
 - a. Produce a Setup/cleanup list
 - b. Utilize appropriate video
equipment (tripod, mic, lights,
etc.)
 - c. Demonstrate proper shooting
techniques (camera settings,
composition, lighting, pov, fov,
etc.)
 - d. Use a shot plan
- Objective 3
Post-Production stage of
creating digital video
 - a. Capture video (Downloading
to computer)
 - b. Use appropriate codec and
resolution settings
 - c. Define asset management
processes (naming conventions,

▪ Start pre-production of a digital video	Plan and produce a final video project	9. Timing
▪ Create a storyline (storyboard, script)		10. Exaggeration
▪ Plan group roles, production schedule & equipment needs		11. Solid Drawing
▪ Film with the proper equipment		12. Appeal
▪ Capture, edit and export a final video		PAL
		NTSC
		CODEC
		Rule of Thirds
		Pre-Production
		Production
		Post-Production
		Script
		Storyboard
		Shot List
		Fair Use
		Frame Rate
		Capture
		Video Resolution
		Aspect Ratio
		POV
		FOV
		Leading Lines

cataloging, storage, compression)	Framing
d. Edit video (transitions, audio/video effects, titling (safe area), aspect ratio, credits, clips, etc.)	3-point lighting
e. Export for appropriate use CD-ROM, DVD, mobile device or Internet (compression settings, codecs, menus, etc.)	Key
f. Recognize and use appropriate video settings i.e.: resolution, Regional standards such as ATSC, NTSC, PAL (e.g., frame rates, frame size, compression, etc.)	Fill
g. Identify video formats (e.g., HD, AVI, MOV, SWF, WMV, MP4, m4v, FLV, VOB, etc.) and broadcast formats	Back
h. Publish a digital video project	Director
	Producer
	Camera Operator
	Talent
	Sound Operator
	Editor
	Shots
	Extreme Wide
	Wide
	Full
	Medium
	Medium Close
	Close
	Extreme Close
	Shot Movements
	Pan
	Tilt

Std 06**Planning**

(Week 34, 2

Weeks)



UT: CTE: Information Technology, UT:
Grades 9-12, Digital Media I
Standard 6
Planning, Design, & Development:
Students will demonstrate proper
planning and design by utilizing an
instructional design model such as
ADDIE, Adobe Professional Design,
Rapid Deployment Model, and so forth in
the development of digital media projects.

- Objective 1
Understand and use the ADDIE Model.
 - a. Analyze — gather and process contextual information affecting the goals, structure, purpose, content, audience, and design of a project.
 - b. Design— plan the general look and scope of the application and the media it will use, along with the budget, tools, objectives, outline content, storyboard, and schedule.
 - c. Develop— collect & create digital media content and testing of the application
 - d. Implement— publish the finished project and make it available to its audience.
 - e. Evaluate — assess the effectiveness of the project with the target audience and make adjustments in future revisions.
- Objective 2
Understand and use the Adobe professional design and development process
 - a. Define — Goals, target audience, content, and delivery requirements
 - b. Structure — Flowchart to portray the overall structure and screen views of the project

- **Use whichever model you prefer – the point is that the students understand there is an instructional design model, not necessarily which model and what occurs in what steps. As a PLC, we decided that any model can basically be broken down into four different stages:**

Plan**Create Goals/Objectives (Scheduling, budgeting)****Understand Client's Needs****Target Audience/Audience Profile****Conceptual Design - Sketching/Modeling/Storyboarding****Create Design Outline****Gather Content****Produce****Create digital media****Design comps****Troubleshoot****Author/Produce Project****Evaluate**

Identify a possible method of creating a digital media project.

Truck

Zoom

Dolly

Pedestal
Graphic Artist

Web Designer

Programmer

Video/Sound Specialist

Instructional Designer

Art Director

Technical Writer

Copy Writer

Project Manager

Subject Matter Expert (SME)

Alpha Test

Beta Test

Prototype

Target Audience

Delivery Medium

	c. Design — design of comps, review with client, redesign from client feedback, and production storyboard d. Build and test — project production based on storyboards, technical and usability testing, revision, and final project presentation e. Launch – launch and publish project	Alpha/Beta testing Client/Audience Feedback Assess effectiveness Make adjustments as needed Present/Publish Final Presentation	
Std 11-12-13 Web-Tech-  (Week 35, 4 Weeks) >	UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I Standard 11 Web Technologies: Students will create basic Web pages or documents. ■ Objective 1 Plan, create, edit, and publish a basic Web site. a. Plan a basic Web site of multiple pages that includes digital media or links to digital media objects b. Apply principles of good design in the Web site c. Create the Web site with interactive links Standard 12 Digital Technologies: Students will explore new and digital technologies ■ Objective 1 Develop an awareness of digital and collaborative technologies a. Explore emerging technologies b. Share Bookmarking: save and share your best web content.(del.icio.us) c. Utilize document sharing and collaborating d. Discuss social networking, blogs, and Wikis in a digital media context e. Explain various digital	Publish final product on Delivery Medium <ul style="list-style-type: none"> ■ Awareness of different programming languages (CSS, html, java, php, flash) ■ Understand creation of good interface design ■ Create a basic web site (multiple pages – at least 2) ■ Understanding of downloading speed/web optimization standards (screen size, resolution in images 72 dpi) ■ Social Bookmarking (pinterest.com, digg.com, or delicious.com) ■ Document Sharing (Google Docs, Microsoft Sharing, Wiki Spaces) ■ Social Networking (blogs, wikis, facebook, twitter, etc) ■ Online digital storage (dropbox.com) ■ Video Conferencing ■ Podcasting, vodcasting ■ RSS feeds ■ Understand how to add several different media elements the digital portfolio (video, audio, animation, graphics) ■ Understand the difference between Computer Based delivery (CB) and Web Based delivery (WB) 	Create a web portfolio of original digital work. WB CB Rollovers Programming Languages RSS Social Bookmarking Hyper-text link Document Sharing Header Site Map Tables Online digital storage Social Networking Video Conferencing Podcasting/vodcasting (or v-cast)

storage tools
f. Describe video conferencing,
webinars, etc.
g. Describe podcasting,
vodcasting and their relationship
to RSS feeds

Web Optimization

Portfolio

Standard 13

Digital Portfolio: Students will design and develop various projects to add to an digital portfolio.

- Objective 1
Select their best work to create an digital archive that adheres to copyright and fair use guidelines and justify their choices.
 - a. Include 2D raster and vector digital graphics
 - b. Include Animation sequences
 - c. Include Digital video
 - d. Include Digital audio
- Objective 2
Output projects to an appropriate delivery medium
 - a. Determine if appropriate for Computer Based delivery (CB)
 - b. Determine if appropriate for Web Based delivery (WB)
 - c. Determine if appropriate for deliver using DVD, Blue-Ray, MP3 Players, CD Players, portable digital devices, cell phones, etc.