



# 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 <a href="#">Digital Media I (11.0210)</a> (District) 2014-2015 <a href="#">Collaboration</a>	<a href="#">Std 02 CompFunc-</a> <a href="#">Ethics</a> (Week 1, 2 Weeks)	UT: CTE: Information Technology, UT: Grades 9-12, Digital Media I Standard 2 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. <ul style="list-style-type: none"> <li>▪ Objective 1 Perform basic computer functions.               <ul style="list-style-type: none"> <li>a. Utilize the Clipboard</li> <li>b. Utilize shortcut keys and quick-stroke commands where applicable in software applications and OS to improve performance.</li> <li>c. Convert and compress files using appropriate codec</li> <li>d. Create back up files</li> <li>e. Monitor file size and disk space</li> <li>f. Utilize asset management using folders, naming conventions, etc.</li> </ul> </li> <li>▪ Objective 2 Implement problem solving skills               <ul style="list-style-type: none"> <li>a. Consult with Teammates</li> <li>b. Search software help menus</li> <li>c. Utilize Internet searches</li> <li>d. Utilize other appropriate sources</li> </ul> </li> <li>▪ Objective 3 Understand and discuss the components of a basic digital media computer system and peripherals.               <ul style="list-style-type: none"> <li>a. Identify, describe and use various input devices</li> <li>b. Identify, describe and use various output devices</li> </ul> </li> <li>▪ Objective 4</li> </ul>	Access and run programs  Open, Create, Save & Save As on files  File Management  File Etiquette  Parts of Computers  User Interface	Access and run programs  Open, Create, Save & Save As on files  File Management  File Etiquette  Parts of Computers  User Interface	Firewire  USB  Multitask  RAM  Resolution  Storage devices  Input Devices  CD-Rom  Output devices  byte-Terabyte  Software Licenses  Copyrights  Freeware  Shareware  Site-License  Open Source  Fair-Use Copyright Amounts  Fair-Use 4

Follow and adhere to the school's acceptable use policy (AUP).

- a. Read and discuss the school's acceptable use policy
- b. Follow and adhere to the school's acceptable use policy.

- Objective 5  
Fair Use Guidelines and Copyright Law
  - 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

Compression

Clipboard

## Std 05 2D Graphis 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**

**Color**  (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

- Objective 2  
 Color Theory — recognize and apply the following concepts:
  - a. Recognize and apply Color Properties (Hue, saturation, value)
  - b. Recognize and apply Color Schemes (complimentary, analogous, triadic, monochromatic)
  - c. Recognize and apply Symbolism/Emotion (warm, cool colors. What do different colors mean in different cultures?)
  - d. Recognize and apply Color depth/palettes (dithering)
  - e. Recognize and apply Color modes (RGB, CMYK, Grayscale)

**Color Properties (Hue, Saturation, Value)**

Design a color scheme for a project

Contrast

**Color Schemes (Complimentary, Analogous, Triadic, Monochromatic)**

Color

**Symbolism/Emotion (Warm/Cool)**

Hue

**Color Modes (RGB, CMYK, Grayscale)**

Saturation

Value

Complimentary

Color Scheme

Analogous

Triadic

Monochromatic

Warm Colors

Cool Colors

**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

- Objective 1  
 Visual Design Elements — recognize and apply the following elements and principles:
  - a. Recognize and apply Shape (Shape is 2D) as it applies to: (line, value (contrast), texture, sizes, pace (positive and negative), color, emphasis, balance/alignment, unity, rhythm)
  - b. Recognize and apply Form (Form is 3D) as it applies to: (line, value (contrast), texture, sizes, pace (positive and negative), color, emphasis, balance/alignment, unity, rhythm)

**Principles of Design – makes it look good**

- Balance
- Emphasis
- Symmetrical (Formal)
- Asymmetrical (Informal)
- Contrast/Value
- Unity
- Rhythm
- Proportion (Comparison)

**Elements of Design – things that are needed to physically create a design**

- Line
- Shape
- Texture
- Color
- Mass/Size
- Space (positive & negative)

Utilize the principles and element of design to create a project

Critique a project to identify and evaluate the use of design elements and principles.

RGB

CMYK

Grayscale

**Shape**

**Form**

**Balance**

**Emphasis/Focal Point**

**Symmetrical (Formal)**

**Asymmetrical (Informal)**

**Contrast**

**Unity**

**Rhythm**

**Proportion**

**Line**

**Leading Line**

**Texture**

- Leading lines
- Rule of 3rds
- Resolution
- Lighting
- Point of View
- Field of View
- mergers
- framing

**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



- Objective 3  
 Image Composition— recognize and use the following concepts:
  - a. Recognize and use mergers, simplicity, leading lines, rule-of-thirds, point-of-view, field-of-view, and framing in image composition
  - b. Understand and apply resolution, anti-aliasing, lighting

- 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 lay  
ers 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.)

- Organization – headings, indents, bullets, etc

- Leading
- Kerning
- Tracking

**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

- **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**

Plan a pathway for career objectives in digital media. Identify career choices in digital media

- 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

**Std 06 (10)**

**Audio**   
(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/narration, music, sound effects)
  - Objective 2  
Edit digital audio
    - a. Edit sound
    - b. Apply special effects to audio files
    - c. Create audio envelopes
    - 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



**Std 09 Video**



(Week 28, 7

Weeks)

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, Cameraman, 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
- Create a storyline (storyboard, script)
- Plan group roles, production schedule & equipment needs
- Film with the proper equipment
- Capture, edit and export a final video

Plan and produce a final video project

9. Timing

10. Exaggeration

11. Solid Drawing

12. Appeal

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)  
d. Edit video (transitions, audio/video effects, titling (safe area), aspect ratio, credits, clips, etc.)  
e. Export for appropriate use CD-ROM, DVD, mobile device or Internet (compression settings, codecs, menus, etc.)  
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.)  
g. Identify video formats (e.g., HD, AVI, MOV, SWF, WMV, MP4, m4v, FLV, VOB, etc.) and broadcast formats  
h. Publish a digital video project

Framing

3-point lighting

Key

Fill

Back

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 a 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 an 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

**Std 11-12-13**  
**Web-Tech-**

**Port**  (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

**Alpha/Beta testing**

**Client/Audience Feedback**

**Assess effectiveness**

**Make adjustments as needed**

**Present/Publish**

**Final Presentation**

**Publish final product on Delivery Medium**

- 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

#### Standard 13

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

Web Optimization

Portfolio

