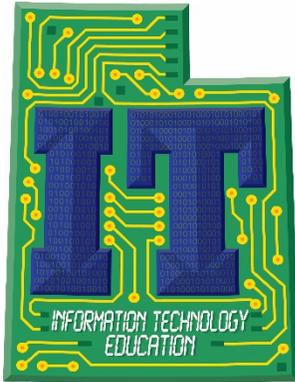# STRANDS AND STANDARDS
## DIGITAL MEDIA 2



## Course Description

Digital Media 2 is a course designed to teach the process of planning, instructional design, development, and publishing of digital media and interactive media projects. Digital Media II is the second year course within digital media pathway where students will focus on developing advanced skills to plan, design, and create interactive projects using the elements of text, 2-D and 3-D graphics, animation, sound, video, digital imaging, interactive projects, etc. These skills can prepare students for entry-level positions and other occupational/educational goals.

| Intended Grade Level | 10-12 |
|---|---|
| Units of Credit | 1.0 |
| Core Code | 35.02.00.00.011 |
| Concurrent Enrollment Core Code | 35.02.00.13.011 |
| Prerequisite | Digital Media 1 |
| Skill Certification Test Number | 804, Digital Media 2, Adobe Photoshop, Adobe Illustrator, Adobe Flash, Adobe PremierePro |
| Test Weight | 1.0 |
| License Type | CTE and/or Secondary Education 6-12 |
| Required Endorsement(s) | |
| Endorsement 1 | Multimedia |


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# STRAND 1

**Students will use and enhance skills learned in digital media design.**

## Standard 1

Apply skills learned in Digital Media I and new advanced techniques
- Create and manipulate 2D graphics using a variety of advanced techniques
- Create and manipulate 2D animations using a variety of advanced techniques
- Create and manipulate digital video using a variety of advanced techniques
- Create and manipulate digital audio using a variety of advanced techniques.

## Standard 2

Review and apply principles and elements of visual design.
- Utilize visual design elements in all interactive projects
- Apply concepts of color theory in designing and building interactive media projects
- Utilize image composition in digital media projects

## Standard 3

Follow AUP, Fair Use guidelines, and copyright law
- Follow and adhere to the school's Acceptable Use Policy
- Understand when copyrighted material can be used under Fair Use guideline
- Understand and adhere to all applicable copyright laws

# STRAND 2

**Students will create a 3D graphic and be introduced to animation.**

## Standard 1

Create a 3D model
- Create a 3D wire frame model
- Understand and create 3D composites
- Render a model using appropriate visual effects (background, textures, lighting, etc.)

## Standard 2

Animate 3D objects
- Animate a 3D object using the key frame method
- Animate a 3D object using the path method

## STRAND 3

**Students will learn and following the process of planning, designing, creating digital assets, evaluating, revising, and publishing of interactive digital media projects.**

### Standard 1

Pre-planning for an interactive media project
- Conceptualize ideas and do the initial planning for a project
- Write a project proposal including objectives, goals, overview of the project, costs, timeline, etc.
- Define the specs for project (target users, technology needed, sign-offs needed, etc.)
- Explore the content needed, development schedule, team member assignments, voice, and review options for the project
- Create an outline/storyboard for the project flow, directories, naming conventions, navigation, and relationships between segments
- Create your script and asset list
- Get approval for any copyright material that will be used
- Plan your user interface and screen shots along with design standards
- Make any revisions needed and get approvals for the project

### Standard 2

Create and development the content for the project
- Create a project prototype and make any needed revisions
- Create and organize the digital media objects needed for the project with appropriate naming conventions
- Assemble the project using the storyboard, script, and flowchart to drive the project
- Add any scripting or programming needed
- Development internal documentation for the project
- Follow copyright and fair use guidelines
- Monitor time and cost progress of the project
- Test the project, check for quality assurance, and make any revisions need
- Get client approval and check off

### Standard 3

Package and publish the project
- Design packaging and other materials needed for publishing and distribution
- Write needed documentation for the use of the project
- Set a launch date
- Provide plan for continued maintenance of the project
- Publish/launch the interactive project

## STRAND 4

**Students will develop interactive media projects working on a team or as an individual. (One project will be in a computer-based (CB) or Web-based (WB) format. The other three projects will student designed projects.)**

### Standard 1

Understand different roles for those who work as members of a Digital Media project team.
- Explore personal interests and abilities related to working in the interactive media industry
- Identify technical talents (i.e. programming, problem solving, algorithmic thinking, etc.)
- Identify organizational and leadership skills
- Explore aptitude for innovation and creativity
- Work and collaborate as a interactive project team member
- Identify and understand the interactive digital media team roles: Graphic Artist, Designer, Programmer, Digital Media Designer, Digital Media Developer, Subject Matter Expert, Media/Instructional Designer, Web Designer/Specialist, etc.
- Explore courses need for a Digital Media Pathway
- Explore careers and training opportunities, trends, and requirements for different roles in interactive media

### Standard 2

(CB Option) Author a computer-based (CB) project that includes the following elements and skills:
- Use the planning and design process for interactive projects
- Use appropriate text and fonts
- Use digital images were needed
- Utilize animation and digital video
- Include audio
- Make the project interactive
- Provide analysis and feedback
- Use of appropriate pieces of software beyond the "authoring" software
- Publish the interactive project

### Standard 3

(WB Option) Create a Web-based (WB) project with the following components and skills:
- Use the planning and design process for interactive projects
- Use appropriate text and fonts
- Include animation from rollovers, animated GIFs, and/or Flash, etc.
- Optimized audio for Web delivery
- Create and optimize digital images Web delivery
- Use digital video that is optimized for Web delivery
- Make it Interactive using links, buttons, and/or image maps

- Provide analysis and feedback
- Use of two or more pieces of software beyond the Web authoring software
- Publish the finished interactive Web project

## Standard 4

(Other Interactive Project Options) Create three other interactive projects.
- Plan, develop, and publish an interactive video project
- Plan, develop, and publish a comprehensive digital audio project
- Plan, develop, and publish a 2D graphics project
- Plan, develop, and publish a interactive 2D animation project
- Plan, develop, and publish an interactive software game
- Plan, develop, and publish an interactive device specific application
- Plan, develop, and publish and interactive 3D project
- Plan, develop, and publish a teacher approved interactive media project

# STRAND 5

**Students will create an interactive digital media portfolio for digital delivery which showcases a student's projects, work, and skills. Projects included can be created individually or as a team member**

## Standard 1

Plan an interactive portfolio of interactive media projects completed
- Use the process for planning and designing interactive projects
- Include examples of the whole planning, design, creation, and publishing process

## Standard 2

Create a menu-driven digital portfolio including the following elements with strict adherence to copyright and fair use guidelines:
- Add: Project Designs (storyboards and concept drawings)
- Include: Animations, Audio, 2D graphics, 3D graphics, Video
- Include finished Projects (individual and/or group)
- Add other award, contest projects, etc. (optional)
- Include your Resume

## Standard 3

Publish the project to CD, DVD, as a PDF Portfolio, or on the Web.
- Make CD & DVD projects self-starting with menus and interactive
- Make Web portfolios interactive with menus and navigation

## STRAND 6

**Students will participate in a work-based learning experience and/or student competition.**

### Standard 1

Participate in a work-based learning experience. (Optional)
- Take a field trip to a software or interactive design business
- Do a job shadow for someone in a digital media career
- Intern at a digital media business
- Listen to an industry or post-secondary guest speaker
- Work for digital media company or as an independent digital media producer

### Standard 2

Participate in a digital media student competition. (Optional)
- Enter a school or school digital media contest
- Prepare and entry in a company or organization digital media contest
- Prepare and submit an entry for the Digital Multimedia Arts Festival
- Enter and compete in a CTSO competition in a digital media area

## Common Core Standards

Digital Media supports the following standards:

### Text, Types and Purposes

- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
    - Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.
    - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications o r the significance of the topic).
- Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
    - Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
    - Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.
    - Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).
    - Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.
    - Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

### Production and Distribution of Writing

- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- Develop and strengthen writing as needed by planning, revising, editing rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 11–12 on page 54.)
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

## Research to Build and Present Knowledge

- Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience;

## Key Ideas and Details

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain
- Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.
- Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

## Craft and Structure

- Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.

## Integration of Knowledge and Ideas

- Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

## Range of Reading and Level of Text Complexity

- By the end of grade 11, read and comprehend literary nonfiction in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 12, read and comprehend literary nonfiction at the high end of the grades 11–CCR text complexity band independently and proficiently.

## Speaking and Listening Comprehension and Collaboration

- Initiate and participate effectively in a range of collaborative discussions (oneon-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
  - Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts

and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

- Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.
- Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
- Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

- Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.
- Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

## Presentation of Knowledge and Ideas

- 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.
- Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
- Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 on page 54 for specific expectations.)

## LANGUAGE STANDARDS-Conventions of Standard English

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - Form and use verbs in the active and passive voice.
    - Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.
    - Recognize and correct inappropriate shifts in verb voice and mood. *

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    - Use punctuation (comma, ellipsis, dash) to indicate a pause or break.
    - Use an ellipsis to indicate

## Knowledge of Language

- Use knowledge of language and its conventions when writing, speaking, reading, or listening.
    - Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).
- Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.
    - Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
    - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede).
    - Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
    - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
    - Interpret figures of speech (e.g. verbal irony, puns) in context.
    - Use the relationship between particular words to better understand each of the words.
    - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

## Conventions of Standard English

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested.
    - Resolve issues of complex or contested usage, consulting references (e.g. Merriam-Webster's Dictionary of English Usage, Garner's Modern American Usage) as needed.

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - Observe hyphenation conventions.
  - Spell correctly.

### Knowledge of Language

- Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
  - Vary syntax for effect, consulting references (e.g., Tufte's Artful Sentences) for guidance as needed; apply

### Vocabulary Acquisition and Use

- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.
  - Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
  - Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable).
  - Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage.
  - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
  - Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text.
  - Analyze nuances in the meaning of words with similar denotations.
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension

## Skill Certificate Test Points by Strand

| Test Name | Test # | Number of Test Points by Strand | | | | | | | | | | | | Total Points | Total Questions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| Digital Media II | 815 | 22 | 8 | 10 | 12 | 4 | | | | | | | | 56 | 41 |