

Digital Media

Level 1: Assumes student has no prior knowledge

Pathway(s): Design & Multimedia Arts, Digital Media and Communication, Production and Managerial Arts

Description

In Digital Media, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.

Student Learning Outcomes

Career Exploration & Postsecondary Opportunities

- 1) Identify employment opportunities in various fields with a focus in the area of digital media
 - a. Recognize the work typically performed, tools and technology used, and nature of work environments
 - b. Identify potential certifications within the careers
 - c. Find membership organizations associated with the careers
 - d. Understand the necessary education associated within the careers
- 2) Define professionalism within the context of digital media
 - a. Criticism and evaluation
 - b. Presentation
 - c. Assessment
- 3) Recognize laws, regulations, and ethics significant to the fields of digital media
- 4) Identify postsecondary opportunities offered in the state of Colorado
 - a. Technical college, community college, 4-year institutions
 - b. Certificates, associates, bachelor, and advanced degree opportunities

Exchange and gather information and resources

- 5) Collaborate using various electronic technologies such as email, blogs, chat rooms, discussion threads, social media, podcasting, wikis, etc.
- 6) Demonstrate appropriate search strategies for finding resources or assets on the Internet
- 7) Discuss recent digital media technologies
- 8) Evaluate and select appropriate software for the development of projects

Legal and ethical responsibility

- 9) Explain and demonstrate ethical use of technology and online resources
- 10) Compare and contrast fair use, open source, and creative commons
- 11) Adhere to intellectual property laws and regulations
- 12) Differentiate between copyright and trademarks

- 13) Explain the concept of intellectual property laws, including copyright, trademarks, and patents and consequences of violating each type of law
- 14) Define and identify unethical practices such as hacking, online piracy, and data vandalism
- 15) Demonstrate ethical use of internet and online resources, including citation of source
- 16) Describe the function of a nondisclosure agreement and intellectual property agreement

Design and Layout Principles in Digital Media

- 17) Compare and contrasted printed and digital communications products that demonstrate appropriate and inappropriate use of design and layout principles
- 18) Identify and apply perspective such as backgrounds, light, shades, shadows, and scale to capture a focal point and create depth
- 19) Identify and apply principles of proportion, balance, variety, emphasis, harmony, symmetry, unity, and repetition in type, color, size, line thickness, shape and space
- 20) Identify and apply three-dimensional effect such as foreground, middle distance, and background images
- 21) Identify and apply concepts of typography
- 22) Identify and apply color theory
- 23) Create and improve digital products by applying the appropriate design and layout principles

Design and Create Digital Graphics

- 24) Compare and contrast the characteristics of raster-based bitmap graphics and vector-based graphics
- 25) Create and modify digital graphics using appropriate vector-based and raster-based software following standard design principles
- 26) Export and set graphics to be used in both print and digital formats
- 27) Demonstrate knowledge of graphic resolution, file size, file formats, and file management
- 28) Determine the type of data stored in a file based on its file extension and select appropriate software to modify, create, and view the file
- 29) Differentiate between the color mode selection in determining product output

Digital Photography Equipment and Techniques

- 30) Demonstrate proper use of safety procedures while using digital photography equipment
- 31) Capture still shot images using digital photography equipment incorporating various photo composition techniques such as lighting, perspective, candid versus posed, rule of thirds, and level of horizon
- 32) Transfer still shot images from equipment to the computer
- 33) Demonstrate photographic enhancement techniques such as feathering, layering, masking, and color enhancement using appropriate photo editing software

Video Equipment and Techniques

- 34) Demonstrate proper use of safety procedures while using digital video equipment
- 35) Demonstrate proper use of terminology in relation to video technology
- 36) Demonstrate proper ethics in the use of digital photographic equipment to capture video images
- 37) Transfer video images from equipment to the computer

- 38) Apply videographic enhancement and editing techniques such as panning, transitioning, zooming, content editing, and synchronizing audio and video using appropriate digital manipulation software
- 39) Export video files in digital formats to be used in various delivery systems such as podcasts, downloadable media, social media, and streaming video

Audio Equipment and Techniques

- 40) Demonstrate proper use of safety procedures while using digital audio equipment
- 41) Demonstrate proper use of terminology and concepts in relation to audio technology
- 42) Demonstrate proper use of digital audio equipment to capture audio files
- 43) Transfer audio files from equipment to the computer
- 44) Demonstrate proper use of audio editing software such as adding effects, fading, volume control and manipulation of waveforms using appropriate digital manipulation software
- 45) Export audio files to be used in digital formats in various delivery systems such as podcasts, downloadable files, social media, and streaming video

Animation

- 46) Plan and create a linear and non-linear animation using accepted standards such as design principles, frames and key frames, integration of audio into an animation, and user interactive controls
- 47) Deploy animation to be used in various digital formats and on various video animation players
- 48) Create an interactive animation

Project Management

- 49) Initiate a project, including identifying the purpose, audience, and audience needs for design plans
- 50) Develop a plan for a media project such as a storyboard and stage development and identify equipment and resources
- 51) Execute and monitor and control a project along its timeline and make suggested revision until completion of the project
- 52) Close a project, including identifying lessons learned

Deployment of Digital Media

- 53) Incorporate video, audio, text, graphics, and animations into a web page
- 54) Incorporate various digital media products into an electronic document such as a newsletter, social media outlet, poster, or report
- 55) Incorporate various digital media products into an interactive product such as animation, computer program, simulation, interactive website, or application.