

Career & Technical Education | Arts & Communication

Multi-Media Web Production

Subject Code: 340160

Outcome & Competency Description

Course Description:

The focus of this course is on merging different types of media on the Internet. Students combine text, still photography, audio, videography, and graphic arts to create interactive websites. They demonstrate creative digital storytelling accessible from multiple platforms. Students learn project management and marketing. They learn how to create web content that is accessible to individuals with visual disabilities.

Strand 1. Business Operations / 21st Century Skills

Learners apply principles of economics, business management, marketing, and employability in an entrepreneur, manager, and employee role to the leadership, planning, developing, and analyzing of business enterprises related to the career field.

Outcome: 1.2. Leadership and Communications

Process, maintain, evaluate, and disseminate information in a business. Develop leadership and team building to promote collaboration.

Competencies

- 1.2.1. Extract relevant, valid information from materials and cite sources of information.
- 1.2.3. Identify and use verbal, nonverbal, and active listening skills to communicate effectively.
- 1.2.4. Use negotiation and conflict-resolution skills to reach solutions.
- 1.2.5. Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose.
- 1.2.7. Use problem-solving and consensus-building techniques to draw conclusions and determine next steps.
- 1.2.8. Identify the strengths, weaknesses, and characteristics of leadership styles that influence internal and external workplace relationships.
- 1.2.9. Identify advantages and disadvantages involving digital and/or electronic communications (e.g., common content for large audience, control of tone, speed, cost, lack of non-verbal cues, potential for forwarding information, longevity).
- 1.2.11. Write professional correspondence, documents, job applications, and resumés.
- 1.2.12. Use technical writing skills to complete forms and create reports.

Outcome: 1.3. Business Ethics and Law

Analyze how professional, ethical, and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.

Competencies

- 1.3.2. Follow protocols and practices necessary to maintain a clean, safe, and healthy work environment.
- 1.3.5. Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization.
- 1.3.6. Identify deceptive practices (e.g., bait and switch, identity theft, unlawful door-to-door sales, deceptive service estimates, fraudulent misrepresentations) and their overall impact on organizational performance.
- 1.3.7. Identify the labor laws that affect employment and the consequences of noncompliance for both employee and employer (e.g., harassment, labor, employment, employment interview, testing, minor labor laws, Americans with Disabilities Act, Fair Labor Standards Acts, Equal Employment Opportunity Commission [EEOC]).
- 1.3.8. Verify compliance with computer and intellectual property laws and regulations.

Outcome: 1.4. Knowledge Management and Information Technology

Demonstrate current and emerging strategies and technologies used to collect, analyze, record, and share information in business operations.

Competencies

- 1.4.3. Verify compliance with security rules, regulations, and codes (e.g., property, privacy, access, accuracy issues, client, and patient record confidentiality) pertaining to technology specific to the industry pathway.

Outcome: 1.5. Global Environment

Evaluate how beliefs, values, attitudes, and behaviors influence organizational strategies and goals.

Competencies

- 1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.

Outcome: 1.6. Business Literacy

Develop foundational skills and knowledge in entrepreneurship, financial literacy, and business operations.

Competencies

- 1.6.1. Identify business opportunities.
- 1.6.5. Describe organizational structure, chain of command, the roles and responsibilities of the organizational departments, and interdepartmental interactions.
- 1.6.6. Identify the target market served by the organization, the niche that the organization fills, and an outlook of the industry.
- 1.6.12. Describe classifications of employee benefits, rights, deductions, and compensations.

Outcome: 1.7. Entrepreneurship/Entrepreneurs

Analyze the environment in which a business operates, and the economic factors and opportunities associated with self-employment.

Competencies

- 1.7.10. Describe techniques for obtaining experience (e.g., apprenticeship, co-operative [co-op] education, work placement, internship, job shadowing) related to an entrepreneurial objective.

Outcome: 1.8. Operations Management

Plan, organize, and monitor an organization or department to maximize contribution to organizational goals and objectives.

Competencies

- 1.8.4. Identify alternative actions to take when goals are not met (e.g., changing goals, changing strategies, efficiencies).

Outcome: 1.10. Sales and Marketing

Manage pricing, place, promotion, packaging, positioning, and public relations to improve quality customer service.

Competencies

- 1.10.2. Determine the customer's needs and identify solutions.

Strand 2.

Design

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

Outcome: 2.1.

Arts Elements and Design Principles

Analyze works of art for the art elements and the design principles needed to create professional products.

Competencies

- 2.1.1. Describe art elements of line, value, color, shape, space, form, and texture in various media that are used individually or in combination.
- 2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction, variety, unity, balance, symmetry) of art elements that communicate and express ideas.
- 2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy, and proportion/scale to communicate ideas.
- 2.1.4. Identify, compare, and contrast unity and variety within a design (e.g., formal/symmetrical, informal/asymmetrical, and radial balance).
- 2.1.6. Interpret emphasis through contrast, isolation, size, and placement.
- 2.1.7. Identify visual hierarchy used to establish dominance.
- 2.1.8. Recognize the use of proportion/scale.

Outcome: 2.2.

Color Theory

Assess the use of color for commercial design.

Competencies

- 2.2.4. Identify gamut output issues and calibrate color.
- 2.2.5. Select color profiles for different mediums (e.g., Red Green Blue [RGB], Cyan Magenta Yellow Key [CMYK], Pantone®, Reference Output Medium Metric [ROMM] RGB, CIE-L*a*B* color space).
- 2.2.6. Replicate color across multiple media accommodating how color changes from the monitor to the final product (e.g., coated and uncoated papers, metallic, color-calibrated monitors).

Outcome: 2.3.

Art Forms

Apply art elements and design principles to create two-dimensional (2D) and three-dimensional (3D) commercial products using various

media to communicate the message and evoke the desired audience response.

Competencies

- 2.3.6. Select the material based on its characteristics (e.g., design, construction, maintenance, care of product) for the intended use.
- 2.3.7. Create a 3D design according to specific measurements using drawing, cutting, scoring, and bonding techniques.

Outcome: 2.4. Visual Layouts

Create layouts for pre-production and analyze the communicative effects on the commercial product.

Competencies

- 2.4.5. Differentiate between raster- and vector-based layouts.

Outcome: 2.5. Typography

Apply typographical elements for a commercial presentation.

Competencies

- 2.5.1. Select typefaces for relevant applications.
- 2.5.4. Apply multiple families of type within a project.
- 2.5.6. Determine the effect of various font types on operating systems.
- 2.5.7. Assess typography's effects on message delivery and aesthetics (e.g., limit families, readability).

Outcome: 2.6. UX/UI Design

Develop basic skills and knowledge of the UX/UI (User Experience/User Interface) design process.

Competencies

- 2.6.1. Understand the UX/UI design process (e.g. vision, journey mapping, wireframing, prototyping, strategizing) for the targeted platform (e.g. graphics, applications, programming).
- 2.6.2. Conduct and analyze research (focus testing, beta testing) with the end user in mind.
- 2.6.6. Design interface elements and experiences that connect concepts with the real world (i.e. Skeuomorphic Design).
- 2.6.10. Understand how the use of appropriate iconography impacts user experience.
- 2.6.11. Understand various design methodologies (Bottom-Up, Top-Down, Agile,) and evaluate their strengths and weaknesses.
- 2.6.12. Describe how attention, memory, perception, conditioning, and learning define the user experience and affects their actions.

Strand 3. Written Content Creation

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism, or marketing purposes.

Outcome 3.1. Career-Based Writing

Develop basic skills and knowledge related to fact-, entertainment-, and marketing-based copy.

Competencies

- 3.1.1. Analyze writing content and styles of fact-, entertainment-, and marketing-based models.
- 3.1.3. Assess and determine the platform for delivery (e.g., video, audio, print, digital, and social media).
- 3.1.5. Create and copy that emphasizes the central theme through supporting ideas or facts.
- 3.1.6. Adapt writing for the literacy level of the audience, including the use of readability software.
- 3.1.7. Critique timeliness, effect, and proximity characteristics of copy.
- 3.1.8. Meet organization-sensitive requirements such as tone, approach, and word count while following style guide parameters.
- 3.1.9. Adapt the format (e.g., web, column) and body style (e.g., inverted-pyramid, hourglass, narrative) based on technical requirements and the purpose for writing.
- 3.1.10. Select visual imagery to support or enhance copy.
- 3.1.11. Review, re-write, and edit to prepare the final copy for client and artistic approval.
- 3.1.12. Critique the impact of your writing and incorporate editor feedback in a revision.

Outcome: 3.3. Fact-Based Writing

Write concise and focused copy for journalism.

Competencies

- 3.3.5. Seek, consider, and synthesize primary, secondary, quantitative, and qualitative research.
- 3.3.10. Apply direct, indirect, and partial quotes.
- 3.3.11. Create content format, length, and flow based on purpose, audience, and channel.
- 3.3.14. Illustrate the value of a project through a media pitch.

Outcome: 3.4. Market-Based Writing

Write concise, creative, memorable, sellable copy for advertising, public relations, and proposals.

Competencies

- 3.4.1. Research and analyze trends and local markets for opportunities.
- 3.4.2. Determine the wants and needs of the target audience.
- 3.4.3. Communicate brand image and product value.
- 3.4.7. Implement the voice of the customer in branding.
- 3.4.10. Apply channels of direct mail, online, email, web, and social media strategies.

Outcome: 3.5. Social Media

Develop content for social media.

Competencies

- 3.5.1. Describe the similarities and differences between social media platforms.
- 3.5.4. Understand social trends and cultural perspectives and how they manifest on social media.
- 3.5.5. Create content tailored to a specific social media platform.

Strand 4. Audio, Video, and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer, and manipulate audio, images, and video for media production.

Outcome: 4.2. Audio Capturing

Apply the principles and properties of how sound is measured, converted, and perceived to capture an audio recording for professional purposes.

Competencies

- 4.2.3. Organize a production from pre-production through publishing and distribution.
- 4.2.4. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff).
- 4.2.5. Select a score for production and post-production needs.

Outcome: 4.3. Audio Operations

Manipulate recordings for professional purposes.

Competencies

- 4.3.3. Synchronize media from different sources.

Outcome: 4.5. Photography

Capture and edit still images for commercial purposes.

Competencies

- 4.5.9. Modify images through sizing, cropping, and output resolution.
- 4.5.10. Modify an image through color-management and special effects.
- 4.5.11. Enhance an image with tone, contrast, filters, composites, and sharpening techniques.
- 4.5.12. Retouch an image by cloning, healing, patching, and rebuilding.
- 4.5.13. Integrate image capture with post-production processes.
- 4.5.14. Capture multiple images and render them in high dynamic range.

- 4.5.17. Produce or modify story elements such as mood, tone, and theme to tell a coherent story through images.

Outcome: 4.6. Videography

Shoot video for professional and archival purposes.

Competencies

- 4.6.4. Select file format, frame rate, and resolution.

Outcome: 4.7. Audio/Video Editing

Edit post-production audio or video for commercial purposes.

Competencies

- 4.7.2. Import and log media for editing.
- 4.7.3. Manage files of digital clips.
- 4.7.4. Use storyboard techniques to place media on a timeline.
- 4.7.5. Correct color, condense, and enhance a video production.
- 4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots, and continuity.
- 4.7.7. Add special effects to a video through filters, keying, and image control.
- 4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ), and matching levels.
- 4.7.9. Create graphics for video products (e.g., titles, still images).
- 4.7.10. Export and upload media for desired specifications and for appropriate platforms.

Strand 6. Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video, or photo images to create graphics for internet, broadcast, mobile, and other multimedia applications.

Outcome: 6.1. Content Management

Import, store, export, and manage digital assets.

Competencies

- 6.1.1. Identify the characteristics that make media interactive.
- 6.1.2. Compare how digital and interactive media are used in different environments (e.g., kiosks, electronic billboards, games).
- 6.1.3. Select an application according to its capabilities in meeting the purpose and budget.
- 6.1.4. Import media into the selected application.
- 6.1.5. Identify the hardware capabilities of various devices and how processor speed, Random Access Memory (RAM), monitor resolution, and media storage affect the development and use of digital projects.
- 6.1.6. Convert file formats for use in editing software and other applications.
- 6.1.7. Export media in the appropriate format for delivery.
- 6.1.8. Manage and archive digital assets through organizational techniques (e.g., metadata, keywords, file/folder structure, name conventions).
- 6.1.9. Explain and demonstrate how creating dynamic advertising is different from other types of advertising.

Outcome: 6.3. Graphics

Create and manipulate two-dimensional (2D) and three-dimensional (3D) digital graphics.

Competencies

- 6.3.1. Create digital graphics.
- 6.3.2. Manipulate the attributes of graphics (e.g., color, shape, size, texture, typography).
- 6.3.3. Arrange and manage graphics using layers.
- 6.3.4. Select a graphic file format based on compression, resolution, and file size.
- 6.3.5. Organize and export graphic files for intended use and platform.

Outcome: 6.4. Animation

Create digital animation.

Competencies

- 6.4.9. Render and export animations for multiple platforms.

Outcome: 6.5. Web Page Design

Design and create webpages to appeal to the end user.

Competencies

- 6.5.1. Identify how different devices, browsers, and operating systems affect the look of a web page.
- 6.5.2. Explain how bandwidths affect data transmission.
- 6.5.3. Describe the basic principles of Hypertext Markup Language (HTML) and its functional relationship with web browsers.
- 6.5.4. Select a web page template based on website characteristics.
- 6.5.5. Design a web page based on subject, devices, audience, layout, color, navigation, graphics, and Americans with Disabilities Act (ADA) requirements.
- 6.5.6. Organize assets for a functional web page.
- 6.5.7. Create and attach cascading style sheets (CSS).
- 6.5.8. Incorporate audio, video, graphics, and animations into a web page.
- 6.5.9. Draft, revise, edit, and proofread to check for format and text accuracy.
- 6.5.10. Execute usability tests on a completed web page, checking for information accessibility, ease of use, and navigation on multiple platforms and devices.
- 6.5.11. Publish a functioning web page for multiple devices, including advanced functionalities (e.g., database, ecommerce).
- 6.5.12. Collect and interpret data analytics.
- 6.5.13. Transfer files using file compression for transfer or storage and archiving.