Florida Department of Education
Curriculum Framework

Program Title: **Digital Media/Multimedia Design**
Program Type: **Career Preparatory**
Career Cluster: **Arts, A/V Technology and Communication**

Career Certificate Program		
Program Number	K100200	
CIP Number	0609070208	
Grade Level	30, 31	
Program Length	1050 hours	
Teacher Certification	Refer to the **Program Structure** section.	
CTSO	SkillsUSA	
SOC Codes (all applicable)	Please see the CIP to SOC Crosswalk located at the link below.	
CTE Program Resources	http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml	
Basic Skills Level	Computation (Mathematics): 10	Communications (Reading and Language Arts): 10

Purpose

The purpose of this program is to prepare students for careers as digital media/multimedia artists.

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Arts, A/V Technology and Communication career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Arts, A/V Technology and Communication career cluster.

The content includes, but is not limited to, practical experiences with specialized skills in multimedia presentations such as imagery, time-based media, internet communication, and audio used to produce a variety of interactive multimedia presentations.

Additional Information relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

Program Structure

This program is a planned sequence of instruction consisting of four occupational completion points.

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length
A	DIG0081	Theory and Foundations of Design	BUS ED 1 @2 COMM ART @7 7G COMPU SCI 6 DIGI MEDIA 7G PRINTING @7 7G SECRETAR 7 G TEC ED 1 @2 ENG&TEC ED1@2 TEC ELEC @7 TV PRO TEC @7 7G VOE @7	150 hours
B	DIG0082	Multimedia Digital Designer		300 hours
C	DIG0083	Multimedia Web Interactive Designer		300 hours
D	DIG0084	Multimedia Integrated Producer Designer		300 hours

Common Career Technical Core – Career Ready Practices

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.

2. Apply appropriate academic and technical skills.

3. Attend to personal health and financial well-being.

4. Communicate clearly, effectively and with reason.

5. Consider the environmental, social and economic impacts of decisions.

6. Demonstrate creativity and innovation.

7. Employ valid and reliable research strategies.

8. Utilize critical thinking to make sense of problems and persevere in solving them.

9. Model integrity, ethical leadership and effective management.

10. Plan education and career path aligned to personal goals.

11. Use technology to enhance productivity.

12. Work productively in teams while using cultural/global competence.

Standards

After successfully completing this program, the student will be able to perform the following:

Theory and Foundations of Design

01.0 Demonstrate knowledge of presentation production issues.
02.0 Demonstrate basic computer knowledge.
03.0 Demonstrate knowledge of still images and time-based media production.
04.0 Demonstrate knowledge of photo and time-based editing software.

Multimedia Digital Designer

05.0 Demonstrate proficiency in advanced design.
06.0 Demonstrate understanding of color modes.
07.0 Identify key animation principles (e.g., momentum, overshoot, bounce, etc.).
08.0 Demonstrate proficiency in using fonts for advanced design.
09.0 Demonstrate proficiency in using illustration software.
10.0 Demonstrate knowledge of design layout software.
11.0 Demonstrate proficiency in using presentation software and equipment to produce a complex presentation.
12.0 Develop proficiency in using authoring software.

Multimedia Web Interactive Designer

13.0 Demonstrate proficiency in preliminary webpage design.
14.0 Demonstrate understanding of HTML and CSS.
15.0 Demonstrate proficiency in authoring software for webpage design.
16.0 Demonstrate knowledge of social media.

Multimedia Integrated Producer Designer

17.0 Demonstrate proficiency using video editing software and equipment.
18.0 Identify broad range of roles for time-based media production.
19.0 Demonstrate proficiency using all media to create a promotional campaign.
20.0 Apply job readiness, career planning and job seeking skills to meet personal and professional goals.
01.0

Florida Department of Education
Student Performance Standards

Program Title: Digital Media/Multimedia Design
Career Certificate Program Number: K100200

Course Number: DIG0081 **Occupational Completion Point: A** **Theory and Foundations of Design – 150 Hours**	
01.0	Demonstrate knowledge of presentation production issues. The student will be able to:
01.01	Identify characteristics of design for digital media (e.g., web, animation, video, and audio).
01.02	Identify presentation materials (slides/handouts) and presentation marketing formats (e.g., social media, print media, newspaper, billboards, posters, magazines, television, movies, computer presentations, web banners, advertisements and webpages).
01.03	Identify design characteristics (e.g., fonts, size, color modes, backgrounds) that are suited for each type of design format and material.
01.04	Demonstrate knowledge of design theory such as hierarchy, design composition, color theory, typography, balance, repetition, etc.
01.05	Demonstrate knowledge of copyright laws (e.g., copyright statutes, disclaimers, and filing procedures).
01.06	Research and identify job titles and skills needed for career positions in multimedia design using information from the U.S. Bureau of Labor Statistics (www.bls.gov).
01.07	Demonstrate understanding of multimedia file formats (e.g., EPS, PDF, TIFF, JPEG, PNG, ASCII, MPEG, MIDI, AVI, WAV) and knowledge of image size when scanning and saving files for use in different design types (print, web, computer, television, mobile devices).
01.08	Demonstrate knowledge of presentation vocabulary and terms.
02.0	Demonstrate basic computer knowledge. The student will be able to:
02.01	Identify basic computer components (e.g., CPU, monitor, keyboard, and resolution).
02.02	Demonstrate understanding of computer specifications.
02.03	Demonstrate best practices of computer safety and ergonomics.
02.04	Demonstrate knowledge of computer operating systems and platforms.
02.05	Demonstrate use of internal and external drives/storage and data backup.
02.06	Identify possible software and hardware malfunctions and perform basic troubleshooting operations.

	02.07 Identify characteristics of software for print, photography, web, animation, video and audio.
03.0	Demonstrate knowledge of still images and time-based media production. The student will be able to:
	03.01 Demonstrate knowledge of digital camera types for capturing stills and video.
	03.02 Demonstrate knowledge of digital photography composition and time-based media.
	03.03 Demonstrate knowledge of digital camera supports (e.g., tripod, grips, and holds).
	03.04 Identify parts of a digital camera (e.g., lens, sensor, and battery).
	03.05 Understand digital camera menus and navigation.
	03.06 Demonstrate knowledge of auto modes and settings (e.g., F-stops, speed, and ISO).
	03.07 Demonstrate knowledge of manual modes and settings (e.g., F-stops, speed, and ISO).
	03.08 Demonstrate understanding of white balance and lighting.
	03.09 Demonstrate proper care, use, and storage of digital cameras.
	03.10 Create both a digital and printed portfolio.
04.0	Demonstrate knowledge of photo and time-based editing software. The student will be able to:
	04.01 Demonstrate understanding of file formats and storage options.
	04.02 Identify the parts of the software interface.
	04.03 Demonstrate the ability to use each of the basic tool sets.
	04.04 Demonstrate the ability to import, export and save images.
	04.05 Demonstrate understanding of layers and channels.
	04.06 Demonstrate understanding of filters, effects and plug-ins.
	04.07 Demonstrate understanding of file presets.
	04.08 Demonstrate the ability to select portions of an image for manipulation.
	04.09 Demonstrate the ability to transform selections and images (crop and scale).
	04.10 Demonstrate the ability to color-correct images (brightness, hue, and contrast).

	04.11 Demonstrate the ability to use tools for image creation and correction.
	04.12 Understand non-destructive and destructive operations.
	04.13 Develop an awareness to import, paint and export 3D objects and/or Virtual Reality Objects.
	04.14 Demonstrate the basic uses of video in photo editing software.
	04.15 Plan and develop raster graphic to meet project needs through a formal RFP (request for proposal).

Course Number: DIG0082 **Occupational Completion Point: B** **Multimedia Digital Designer – 300 Hours**	
05.0	Demonstrate proficiency in advanced design. The student will be able to:
	05.01 Demonstrate knowledge of advanced design.
	05.02 Identify design strategies to reach the intended audience.
	05.03 Use storyboarding or sketches to plan a design.
	05.04 Create formal or informal design layouts using guidelines, colors, fonts, graphics and logos.
	05.05 Demonstrate use of authoring software integration.
	05.06 Identify compatibility formats (extensions) for authoring software integration.
06.0	Demonstrate understanding of color modes. The student will be able to:
	06.01 Demonstrate knowledge of the color process for printing purposes.
	06.02 Demonstrate knowledge of color conversion from display to print.
	06.03 Demonstrate knowledge of spot colors.
	06.04 Demonstrate knowledge of web-safe colors.
	06.05 Explain color mode differences (e.g., RGB, CMYK, and HSB).
	06.06 Understand accessing color modes from authoring software.
07.0	Identify key animation principles (e.g., momentum, overshoot, bounce, etc.). The student will be able to:

	07.01 Demonstrate knowledge of stop motion and roto-scoping.
	07.02 Demonstrate knowledge of time remapping.
08.0	Demonstrate proficiency in using fonts for advanced design. The student will be able to:
	08.01 Identify *serif* and *sans-serif* fonts.
	08.02 Demonstrate knowledge of conversion of fonts to outlines.
	08.03 Understand the proprietary copyrights of fonts.
	08.04 Demonstrate knowledge of standard font formats (e.g., TrueType, PostScript, and OpenType).
	08.05 Design and develop a print and/or digital portfolio (e.g., business cards, posters, billboards, magazines, and brochures).
09.0	Demonstrate proficiency in using illustration software. The student will be able to:
	09.01 Evaluate industry standard illustration software packages.
	09.02 Identify characteristics of vector and bitmap images.
	09.03 Demonstrate understanding of the software workspace and navigation (e.g., views, tabs, and zoom).
	09.04 Demonstrate use of drawing tools to create, combine and edit basic shapes.
	09.05 Demonstrate the ability to transform content (e.g., scale, rotation, and position).
	09.06 Demonstrate understanding of Bezier curve and the appropriate tools for manipulation (e.g., direct select, convert anchor point, pen tool, pencil tool, etc.).
	09.07 Demonstrate use of color and painting tools (e.g., patterns, gradients, and color palettes).
	09.08 Demonstrate the ability to work with type (e.g., formatting, font palette, character panels, and paths).
	09.09 Demonstrate use of layers by creating, locking, viewing, pasting, and merging.
	09.10 Demonstrate use of blending (gradients and objects).
	09.11 Demonstrate use of brushes; download new brushes.
	09.12 Explore file exporting options and round-trip workflows with page layout software.
	09.13 Demonstrate knowledge of bleed for vector and bitmap design software.
	09.14 Plan and develop vector graphic to meet project needs through a formal RFP (request for proposal).

10.0	Demonstrate knowledge of design layout software. The student will be able to:
10.01	Identify parts of the software interface.
10.02	Demonstrate the ability to customize and navigate the workspace.
10.03	Demonstrate understanding of pre-flighting.
10.04	Work with styles, graphics and objects in a design.
10.05	Set up a document and manage pages within document.
10.06	Demonstrate use of layers, text frames and graphic frames.
10.07	Determine the appropriate use of grids, columns, margins, and bleed.
10.08	Demonstrate the ability to align, transform and group objects.
10.09	Understand typography and text editing.
10.10	Demonstrate understanding of color (e.g., applying, gradients, tint, spot, and management).
10.11	Import and modify graphics (e.g., links, vector/bitmap images, quality, and alpha channels).
10.12	Understand output and exporting functions (e.g., proofs, separations, and prepress).
11.0	Demonstrate proficiency in using presentation software and equipment to produce a complex presentation. The student will be able to:
11.01	Using authoring/editing software, create a multimedia presentation that incorporates custom raster graphics, vector graphics, typography, color and shapes and good design principles.
11.02	Demonstrate knowledge of the roles and responsibilities of a multimedia production team (e.g., project manager, creative or design director, content experts, writers, graphic designers, animators, sound designers, videographers, and interface designers/programmers).
12.0	Develop proficiency in using authoring software. The student will be able to:
12.01	Plan and develop media to meet project needs through a formal RFP (request for proposal).
12.02	Present project for evaluation and make modifications to improve the project.

Course Number: DIG0083 Occupational Completion Point: C Multimedia Web Interactive Designer – 300 Hours	
13.0	Demonstrate proficiency in preliminary webpage design. The student will be able to:
13.01	Determine the objectives and the audience for webpages.
13.02	Identify design strategies to reach and keep an audience.
13.03	Use storyboarding to plan a website.
13.04	Identify styles and other design elements (e.g., backgrounds, colors, fonts, and buttons).
14.0	Demonstrate understanding of HTML and CSS. The student will be able to:
14.01	Interpret HTML coding to identify the structure of an existing webpage
14.02	Develop HTML coding to write a webpage.
14.03	Demonstrate understanding of Cascading Style Sheets (CSS) on an existing webpage.
14.04	Demonstrate compliance with ADA recommendations for all websites created.
14.05	Utilize markup validity to ensure compliance with the W3C for all websites created.
15.0	Demonstrate proficiency in authoring software for webpage design. The student will be able to:
15.01	Demonstrate understanding of photograph compression factors such as transmission speed, color reduction, and browser support.
15.02	Save and export a photograph to the web in the best format for image quality and file size.
15.03	Demonstrate knowledge of image formats related to photos and graphics on the Internet.
15.04	Demonstrate understanding of pixels for web design.
15.05	Create webpages for publication.
15.06	Apply style sheets for consistent website design.
15.07	Format text for webpages (e.g., font families and sizes).
15.08	Create and edit images and photographs for webpages using digital imaging software.
15.09	Create and insert buttons into a webpage and test for accuracy.
15.10	Create navigational links.

	15.11 Insert audio files into a webpage.
	15.12 Create, edit and integrate video files into a webpage.
	15.13 Create, edit and integrate animation files into a webpage.
	15.14 Create meta-commands and keywords for search engines.
	15.15 Optimize page size for effective downloading to browsers.
	15.16 Create and incorporate a form into a webpage.
	15.17 Edit and test links for accuracy and validity.
	15.18 Create several webpages for a portfolio.
16.0	Demonstrate knowledge of social media. Student will be able to:
	16.01 Identify design strategies to reach and keep a target audience.
	16.02 Demonstrate an understanding of various social media algorithms.
	16.03 Design and publish images on various social media platforms.
	16.04 Storyboard and publish animations on various social media platforms.
	16.05 Storyboard and publish short video clips to reach a target audience.

Course Number: DIG0084 **Occupational Completion Point: D** **Multimedia Integrated Producer Designer – 300 Hours**	
17.0	Demonstrate proficiency using time-based media editing software and equipment. The student will be able to:
	17.01 Demonstrate knowledge of non-linear editing software.
	17.02 Identify components of non-linear video editing equipment.
	17.03 Set up non-linear video editing equipment.
	17.04 Use storyboarding to plan a short non-linear video project that includes existing video footage with a title, transitions, background sound, voice-over, animation, and rolling credits.

	17.05	Use time-based media editing software to create and edit a movie that includes video footage with a title, transitions, Foley audio and rolling credits and output to video.
	17.06	Collaborate with team members to plan, edit, and shoot video footage utilizing advanced video editing techniques and output to video.
	17.07	Discuss the use of batch processing and project trimming.
	17.08	Plan, create, edit and present a short non-linear movie with title, transitions, sub and virtual clips, sound, background music, voice-over, and credits.
18.0	Identify broad range of roles for time-based media production. The student will be able to:	
	18.01	Collaborate with team members to plan, edit, evaluate, and present a multimedia presentation or product.
19.0	Demonstrate proficiency using all media to create a promotional campaign. The student will be able to:	
	19.01	Use authoring software to plan and create a promotional campaign that includes collateral materials, digital photography, webpages, animation, video, and/or audio.
20.0	Apply job readiness, career planning and job seeking skills to meet personal and professional goals. The student will be able to:	
	20.01	Create a digital résumé and print it.
	20.02	Create and publish a digital portfolio.
	20.03	Market digital media/multimedia design skills for employment.

Additional Information

Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

Career and Technical Student Organization (CTSO)

SkillsUSA is the co-curricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

Cooperative Training – OJT

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

Basic Skills

In Career Certificate Programs offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Computation (Mathematics) and Communications (Reading and Language Arts). These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02, Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01, F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College System Institution must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91, F.S.

Accommodations

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.