

Digital Media (2015)

Implementation. **A**

- 1** The provisions of this section shall be implemented by school districts beginning with the 2017- 2018 school year. **A.1**
- 2** School districts shall implement the employability skills student expectations listed in §127.15(d)(1) of this chapter (relating to Career and Technical Education Employability Skills) as an integral part of this course. **A.2**

General requirements. This course is recommended for students in Grades 9-12. Students shall be awarded one credit for successful completion of this course. **B**

- b** General requirements. This course is recommended for students in Grades 9-12. Students shall be awarded one credit for successful completion of this course. **B**

Introduction. **C**

- 1** Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions. **C.1**
- 2** The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services. **C.2**
- 3** 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. **C.3**
- 4** Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other organizations that foster leadership and career development in the profession such as student chapters of related professional associations. **C.4**

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- 5 Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples. C.5**
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Knowledge and skills. D

- 1 The student identifies employment opportunities in the IT field with a focus in the area of digital media. The student is expected to: D.1**

- A identify job opportunities and accompanying job duties and tasks; D.1.A
 - B research careers of personal interest along with the education, job skills, and experience required to achieve personal career goals; D.1.B
 - C demonstrate an understanding of the functions of resumes and portfolios; and D.1.C
 - D create a digital portfolio. D.1.D
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- 2 The student uses emerging technologies to exchange and gather information and resources. The student is expected to: D.2**

- A collaborate using various electronic technologies such as email, blogs, chat rooms, discussion threads, social media, podcasting, and wikis; D.2.A
 - B demonstrate appropriate search strategies for finding resources or assets on the Internet; D.2.B
 - C discuss recent digital media technologies; and D.2.C
 - D evaluate and select appropriate software for the development of projects. D.2.D
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- 3 The student complies with standard practices and behaviors that meet legal and ethical responsibilities. The student is expected to: D.3**

- A explain and demonstrate ethical use of technology and online resources; D.3.A
 - B compare and contrast fair use, open source, and creative commons; D.3.B
 - C adhere to intellectual property laws and regulations; D.3.C
 - D differentiate between copyright and trademarks; D.3.D
 - E explain the concept of intellectual property laws, including copyright, trademarks, and patents and consequences of violating each type of law; D.3.E
 - F define and identify unethical practices such as hacking, online piracy, and data vandalism; D.3.F
 - G demonstrate ethical use of Internet and online resources, including citation of source; and D.3.G
 - H describe the function of a non-disclosure agreement and intellectual property agreement. D.3.H
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- 4 The student analyzes and applies design and layout principles in digital media. The student is expected to: D.4**

- A compare and contrast printed and digital communications products that demonstrate appropriate and inappropriate use of design and layout principles; D.4.A
 - B identify and apply perspective such as backgrounds, light, shades, shadows, and scale to capture a focal point and create depth; D.4.B
 - C identify and apply principles of proportion, balance, variety, emphasis, harmony, symmetry, unity, and repetition in type, color, size, line thickness, shape, and space; D.4.C
 - D identify and apply three-dimensional effects such as foreground, middle distance, and background images; D.4.D
 - E identify and apply concepts of typography; D.4.E
 - F identify and apply color theory; and D.4.F
 - G create and improve digital products by applying the appropriate design and layout principles. D.4.G
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5 The student designs and creates digital graphics. The student is expected to: D.5

- A compare and contrast the characteristics of raster-based bitmap graphics and vector-based graphics; D.5.A
 - B create and modify digital graphics using appropriate vector-based and raster-based software following standard design principles; D.5.B
 - C export and set graphics to be used in both print and digital formats; D.5.C
 - D demonstrate knowledge of graphic resolution, file size, file formats, and file management; D.5.D
 - E 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; and D.5.E
 - F differentiate between the color mode selections in determining product output. D.5.F
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6 The student demonstrates appropriate use of digital photography equipment and techniques. The student is expected to: D.6

- A demonstrate proper use of safety procedures while using digital photography equipment; D.6.A
 - B 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; D.6.B
 - C transfer still shot images from equipment to the computer; and D.6.C
 - D demonstrate photographic enhancement techniques such as feathering, layering, masking, and color enhancement using appropriate photo editing software. D.6.D
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7 The student demonstrates appropriate use of video equipment and techniques. The student is expected to: D.7

- A demonstrate proper use of safety procedures while using digital video equipment; D.7.A
 - B demonstrate proper use of terminology in relation to video technology; D.7.B
 - C demonstrate proper ethics in the use of digital video photography equipment to capture video images; D.7.C
 - D transfer video images from equipment to the computer; D.7.D
 - E apply videographic enhancement and editing techniques such as panning, transitioning, zooming, content editing, and synchronizing audio and video using appropriate digital manipulation software; and D.7.E
 - F export video files in digital formats to be used in various delivery systems such as podcasts, downloadable media, social media, and streaming video. D.7.F
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8 The student demonstrates appropriate use of audio equipment and techniques. The student is expected to: D.8

- A demonstrate proper use of safety procedures while using digital audio equipment; D.8.A
 - B demonstrate proper use of terminology and concepts in relation to audio technology; D.8.B
 - C demonstrate proper use of digital audio equipment to capture audio files; D.8.C
 - D transfer audio files from equipment to the computer; D.8.D
 - E demonstrate proper use of audio editing software such as adding effects, fading, volume control, and manipulation of waveforms using appropriate digital manipulation software; and D.8.E
 - F export audio files to be used in digital formats in various delivery systems such as podcasts, downloadable files, social media, and streaming video. D.8.F
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9 The student demonstrates appropriate use of animation. The student is expected to: D.9

- A 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; D.9.A
 - B deploy animation to be used in various digital formats and on various video animation players; and D.9.B
 - C create an interactive animation. D.9.C
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10 The student demonstrates appropriate project management in the creation of digital media projects. The student is expected to: D.10

- A initiate a project, including identifying the purpose, audience, and audience needs for design plans; D.10.A
- B develop a plan for a media project such as a storyboard and stage development and identify equipment and resources; D.10.B

- C execute and monitor and control a project along its timeline and make suggested revisions until completion of the project; and D.10.C
 - D close a project, including identifying lessons learned. D.10.D
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11 The student deploys digital media into print, web-based, and video products.

The student is expected to: D.11

- A incorporate video, audio, text, graphics, and animations into a web page; D.11.A
- B incorporate various digital media products into an electronic document such as a newsletter, social media outlet, poster, or report; and D.11.B
- C incorporate various digital media products into an interactive product such as an animation, computer program, simulation, interactive website, or application. D.11.C