Colorado CTE

Interactive Media (2015): Grades 9, 10, 11, 12, Higher Education

Adopted 2015

Understand and implement the design and development process for the production of quality interactive media. ITIM.01

01. **Gather data to identify customer requirements and assess customer needs based on competition.** ITIM.01.01
    a. Use survey/interview tools to identify customer requirements. ITIM.01.01.A
    b. Use assessment tools to compare competitor approaches. ITIM.01.01.B
    c. Integrate needs and assessments into a unique solution to the project design. ITIM.01.01.C

02. **Define scope of work to meet customer requirements.** ITIM.01.02
    a. Prepare functional and visual design specifications for a project. (ie storyboards, flowcharts, user interface, navigational schema, etc.). ITIM.01.02.A
    b. Determine the target audience requirements (such as web accessibility). ITIM.01.02.B
    c. Identify available media and content sources. ITIM.01.02.C

03. **Create final project plan.** ITIM.01.03
    a. Identify and obtain tools and resources to do the job. ITIM.01.03.A
    b. Identify and evaluate risks. ITIM.01.03.B
    c. Develop detailed task list. ITIM.01.03.C
    d. Identify critical milestones. ITIM.01.03.D
    e. Identify technical constraints. ITIM.01.03.E
    f. Identify interdependencies. ITIM.01.03.F

04. **Analyze usability and accessibility as it pertains to customer needs.** ITIM.01.04
    a. Demonstrate knowledge of WAI priorities. ITIM.01.04.A
    b. Demonstrate knowledge of web metrics and governance (policies and stylebooks). ITIM.01.04.B
    c. Demonstrate knowledge of cultural implications on design and deployment of digital communication products. ITIM.01.04.C

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d. Explain the importance of ethical behaviors and legal issues. ITIM.01.04.D

e. Consider intellectual property issues in the production of interactive media. ITIM.01.04.E

Understand and demonstrate the use of software and hardware for digital communication production, development and project management. ITIM.02

01. Demonstrate the ability to work with appropriate software tools. ITIM.02.01

a. Demonstrate proficiency in the use of digital imaging tools, digital video techniques, and equipment. (i.e. bitmapped image editing, vector based editing, layers, channels, masks, etc.). ITIM.02.01.A

b. Demonstrate knowledge of available graphics, video, motion graphics, web software programs. ITIM.02.01.B

c. Demonstrate knowledge of available project management and collaborative tools. ITIM.02.01.C

d. Demonstrate knowledge of integrated development environments (such as Visual Studio, Dreamweaver, Flash, Waterproof, etc.). ITIM.02.01.D

e. Demonstrate the ability to create and transform objects in 3D space; apply effective lighting and camera manipulations. ITIM.02.01.E

f. Demonstrate knowledge of the basic principles of motion graphics. ITIM.02.01.F

g. Identify how different user agents (browsers, devices) affect the digital communication product. ITIM.02.01.G

02. Utilize the design principles and elements used to create a uniform interactive media product. ITIM.02.02

a. Use design elements such as shape, space, lines, size, color, texture, and typography, proportion, balance, scale to create an effective media product. ITIM.02.02.A

b. Use design support principles such as unity, variety, hierarchy, proportion, balance, scale, rhythm, and repetition to create an effective media product. ITIM.02.02.B

03. Identify and utilize appropriate hardware configuration and tools. ITIM.02.03

a. Identify appropriate tools for creating computer graphics (3 button mouse, tablet, graphics card). ITIM.02.03.A

b. Understand the hardware requirements for the creation, visualization, and rendering of computer 2D and 3D graphics. ITIM.02.03.B

04. Employ knowledge of Web design, programming, and administration to develop Web applications. ITIM.02.04

a. Utilize basic web development skills (i.e. version control, security, compatibility, standards). ITIM.02.04.A

b. Demonstrate knowledge of basic Web programming and scripting languages (i.e. HTML, CSS, Javascript, .NET, PHP, etc.). ITIM.02.04.B

c. Explain Internet architecture elements. ITIM.02.04.C

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d. Demonstrate knowledge of a server environment and how to interface client/server (i.e. protocols, hardware, software, domains, service providers, search engines). ITIM.02.04.D

Implement and maintain an interactive media product to meet customer needs. ITIM.03

01. Utilize appropriate methodologies for creating quality interactive media. ITIM.03.01

a. Implement the functional/visual design criteria to create a media product. ITIM.03.01.A

b. Demonstrate the effective use of the animation timeline. ITIM.03.01.B

c. Understand and apply knowledge of environments. ITIM.03.01.C

d. Consider intellectual property issues in the production of interactive media. ITIM.03.01.D

02. Implement testing procedures to evaluate the functionality of the product. ITIM.03.02

a. Create and implement a test plan for a specific product. ITIM.03.02.A

b. Identify and resolve product problems. ITIM.03.02.B

03. Identify and implement quality assurance processes to ensure a quality product. ITIM.03.03

a. Analyze technical support needs including internal and external documentation. ITIM.03.03.A

b. Perform product maintenance activities (i.e., product and documentation updates, user requested enhancements, etc.). ITIM.03.03.B

c. Perform customer support activities as required by the user. ITIM.03.03.C