Indiana CTE

Digital Design

Digital Design

I **Principles of Digital Design** 7140

a Domain: Design Fundamentals 7140.D1

1 Define and apply design process theory. 7140.D1.1

2 Create compositions, artwork, illustrations, layouts, designs, etc. that demonstrate the effective use of the elements and principles of design. 7140.D1.2

3 Demonstrate creative and visual problem-solving skills through exercises and/or projects utilizing vector/raster-based graphics programs and/or other traditional processes. 7140.D1.3

4 Generate ideas, notes and thumbnails manually or digitally. 7140.D1.4

5 Create oral or written justification using appropriate design vocabulary. 7140.D1.5

6 Engage in critical peer evaluation. 7140.D1.6

Skip to main content

b Domain: Photography 7140.D2

1 Demonstrate an ability to operate a camera using manual controls. 7140.D2.1

2 Measure incidental and reflective light for a subject and determine the proper camera settings. 7140.D2.2

3 Demonstrate printing equipment to produce properly exposed and processed prints. 7140.D2.3

4 Learn and employ methods of image correction. 7140.D2.4

5 Produce photographs which demonstrate an ability to control focus in a variety of situations. 7140.D2.5

6 Demonstrate an understanding of depth of field. 7140.D2.6

7 Demonstrate an understanding of capturing and freezing motion. 7140.D2.7

8 Understand how to apply the theory of equivalent exposures and bracketing. 7140.D2.8

9 Demonstrate the effects of time of day on the qualities and direction of available light. 7140.D2.9

10 Demonstrate an understanding of photographic filters and how they work. 7140.D2.10

11 Demonstrate an understanding of photographic composition and design. 7140.D2.11

12 Produce photographs that exhibit conceptual thinking ability. 7140.D2.12

II **Digital Design Graphics** 7141

a Domain: Vector Graphics and Publication Design 7141.D1

1 Navigate within the computer's operating environment. 7141.D1.1

2 Demonstrate a working knowledge of the hardware components and peripherals. 7141.D1.2

3 Execute fundamental type formatting and editing. 7141.D1.3

4 Develop the critical basics of effective page layout software operation. 7141.D1.4

5 Utilize illustration tools to manipulate paths and anchor points. 7141.D1.5

6 Recognize graphic file formats and appropriate uses. 7141.D1.6

Skip to main content

b Domain: Raster Graphics 7141.D2

1 Operate image input devices. 7141.D2.1

2 Explain the physical properties of light and the basic laws of photographic optics (how light behaves). 7141.D2.2

3 Explain the differences between various graphic file formats, image resolution, and proper light levels. 7141.D2.3

4 Create images that use the principles/fundamentals of design. 7141.D2.4

5 Demonstrate the ability to solve communication design problems using imaging. 7141.D2.5

6 Develop hand/computer-imaging skills. 7141.D2.6

7 Apply the rules of effective typography using hand and/or computer skills. 7141.D2.7

8 Demonstrate a variety of imaging methods in application to class projects. 7141.D2.8

9 Be able to assess your work and others constructively and effectively. 7141.D2.9

III **Graphic Design and Layout** 5550

a Domain: Typography 5550.D1

1 Describe, appreciate and apply the history and development of type and typefaces. 5550.D1.1

2 Describe and use typographic terminology. 5550.D1.2

3 Create various design projects/layouts that demonstrate the ability to solve communication design problems using typography. 5550.D1.3

4 Be aware of the design (typefaces, hand lettering, font creation) options available, and fully utilize the unique potential of the typography. 5550.D1.4

5 Develop an attention to detail to recognize typographic rules and aesthetics. 5550.D1.5

6 Evaluate your and peer work critically. 5550.D1.6

b Domain: Graphic Design and Layout 5550.D2

1 Create portfolio quality projects by applying the design process. 5550.D2.1

2 Develop marketing concepts by completing creative briefs based on global, corporate and social applications and target audience. 5550.D2.2

3 Visualize ideas by means of research, thumbnail sketches, and developmental drafts. 5550.D2.3

4 Identify print reproduction criteria necessary for various media. 5550.D2.4

5 Adhere to a production schedule to meet deadlines in an efficient and professional manner. 5550.D2.5

6 Present and provide feedback to peers, clients, faculty, or advisors. 5550.D2.6

Skip to main content

IV **Interactive Media Design** 7138

a Domain: Web and Social Media 7138.D1

1 Discuss the current online/interactive environment and the unique design challenges this media (websites, mobile, and social media) presents. 7138.D1.1

2 Identify and apply effective design solutions based on content. 7138.D1.2

3 Understand how User Experience (UX) impacts online/interactive media. 7138.D1.3

4 Discuss the importance of proper research, brainstorming and thumbnails. 7138.D1.4

5 Analyze and optimize graphic files for web delivery. 7138.D1.5

6 Evaluate the aesthetics of interactive media such as websites, social media, mobile design. 7138.D1.6

7 Recognize the importance and power of social media in maintaining content. 7138.D1.7

8 Identify current and emerging social media trends. 7138.D1.8

9 Understand Search Engine Optimization (SEO) theory and current practices. 7138.D1.9

10 Apply professional quality standards in the role of blogging, social networking, dynamic media, and the mobile web to build the brand of a company, person, or organization 7138.D1.10

11 Implement interactive media such as websites, social media mobile design using current editing software. 7138.D1.11

12 Manipulate and optimize images for web utilization with industry-standard graphic software. 7138.D1.12

13 Understand web hosting options. 7138.D1.13

b Domain: Video and Sound 7138.D2

1 List and compare various formats for video recording, storage and sequencing. 7138.D2.1

2 Describe the production process and define the responsibilities of production team members. 7138.D2.2

3 Learn the basics of planning, shooting, editing and post-producing video. 7138.D2.3

4 Analyze videos for technical quality and aesthetic principles. 7138.D2.4

5 Demonstrate competent usage and handling of video equipment. 7138.D2.5

6 Incorporate effective visual aesthetics in capturing video content. 7138.D2.6

7 Compile and edit video content into creative and technically successful projects. 7138.D2.7

Professional Photography & Videography 7136

Skip to main content

a Domain: Commercial Photography 7136.D1

1 Apply zone system to black and white photography. 7136.D1.1

2 Effectively execute assignments starting with pre-visualization and ending with a properly exposed negative and print. 7136.D1.2

3 Demonstrate ability to use filters with the camera. 7136.D1.3

4 Demonstrate the ability to make decisions about depth of field and shutter speeds. 7136.D1.4

5 Demonstrate and refine ability to compose effectively. 7136.D1.5

6 Demonstrate advanced tonal controls, image adjustments, as well as various digital workflow processes to produce high quality digital prints. 7136.D1.6

7 Demonstrate the critical and aesthetic skills necessary to effectively assess photographic images. 7136.D1.7

8 Present orally a project to your peers, clients, faculty, or advisors. 7136.D1.8

b Domain: Video and Sound 7136.D2

1 List and compare various formats for video recording, storage, and sequencing. 7136.D2.1

2 Describe the production process and define the responsibilities of production team members. 7136.D2.2

3 Learn the basics of planning, shooting, editing and post-producing video. 7136.D2.3

4 Analyze videos for technical quality and aesthetic principles. 7136.D2.4

5 Demonstrate competent usage and handling of video equipment. 7136.D2.5

6 Incorporate effective visual aesthetics in capturing video content. 7136.D2.6

7 Compile and edit video content into creative and technically successful project 7136.D2.7

VI Digital Design Capstone 7246

Skip to main content

a Domain: User Experience/User Interface 7246.D1

1 Describe, appreciate, and apply the history, development, and standards of experience/interface design. 7246.D1.1

2 Describe and use UX/UI terminology. 7246.D1.2

3 Demonstrate knowledge of the standards, terms, and applications of UX/UI. 7246.D1.3

4 Demonstrate an understanding of the various methods used in this field. 7246.D1.4

5 Through various assignments communicate your research, analysis, scenarios, etc. which show comprehension of the end users' needs. 7246.D1.5

6 Develop an awareness of all the interrelated factors that impact user experience (ADA compliance, mobile, user centered design, societal factors, etc.). 7246.D1.6

7 Demonstrate sound user experience design practice relative to the enhancement of communication and visual appeal. 7246.D1.7

8 Evaluate your peer and professional work critically. 7246.D1.8

b Domain: Production Editing I 7246.D2

1 Ingest digital footage into an editing system. 7246.D2.1

2 Explore various aspects for the editing process. 7246.D2.2

3 Understand and use appropriate editing styles. 7246.D2.3

4 Create and refine a rough cut. 7246.D2.4

5 Produce projects using a non-linear editing system. 7246.D2.5

6 Integrate audio and video within a project. 7246.D2.6

7 Synchronize multiple concurrent video angles taken from a multi-camera shoot. 7246.D2.7

8 Experiment with special effects, masking, and matting. 7246.D2.8

9 Produce projects of varying lengths and output mediums. 7246.D2.9

10 Edit projects down to a specific time frame. 7246.D2.10

11 Present orally a project to your peers, clients, faculty, or advisors 7246.D2.11

Skip to main content

c Domain: Motion Graphics 7246.D3

1 Develop advanced creative interfaces for use in multimedia projects. 7246.D3.1

2 Integrate the principles of good multimedia design with a strong focus on the aesthetic component including research, brainstorming, and storyboarding. 7246.D3.2

3 Synchronize animation and sound. 7246.D3.3

4 Incorporate various mediums, including sound, images, audio, etc. 7246.D3.4

5 Describe the different roles of a multimedia producer within the industry. 7246.D3.5

6 Analyze the use of multimedia as a marketing tool. 7246.D3.6

7 Appraise and integrate different content and software to achieve one product. 7246.D3.7

8 Use basic programming skills to add functionality to a project. 7246.D3.8

9 Implement usability and functionality testing processes. 7246.D3.9

d Domain: 3D Rendering and Animation 7246.D4

1 Apply the ability to employ available 3D rendering and animation software packages. 7246.D4.1

2 Construct and render 3D models and textures for use in static and dynamic simulated environments. 7246.D4.2

3 Utilize constructed environments and models in various animations techniques. 7246.D4.3

4 Explain the history of computer animation. 7246.D4.4

5 Evaluate the possibilities of computer animation and how it is utilized in a variety of industries today. 7246.D4.5

Skip to main content

e Domain: Web Design 7246.D5

1 Explain Information Architecture (IA) how interactive media design affects user experience (UX), and how that translates to a successful user interface (UI). 7246.D5.1

2 Describe and apply effective interactive media design processes—including research, web project definition, organization, structure, process, and interaction. 7246.D5.2

3 Identify and apply effective design solutions based on content. 7246.D5.3

4 Discuss the importance of proper research, brainstorming and thumbnails, and wireframing. 7246.D5.4

5 Evaluate the aesthetics of interactive design pertaining to emerging trends. 7246.D5.5

6 Discuss the history of interactive design and the relationship they have with interactive design today 7246.D5.6

7 Discuss design principles (color, layout, typography) as they apply to interactive design. 7246.D5.7

8 Construct web pages using standards- compliant HTML5 and CSS3 that successfully passes validation tests of theW3C. 7246.D5.8

9 Discuss the use of helper technologies such as CSS frameworks, and when and why to use them. 7246.D5.9

10 Implement a simple JavaScript plugin to add dynamics to a website. W311. Create a final static website meeting the needs of a client. 7246.D5.10