Tennessee CTE

Digital Arts & Design II

Safety 1

1 **Demonstrate the ability to comply with personal and environmental safety practices associated with art and design applications: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.** 1.11

- A Inspect, maintain, and employ safe operating procedures with tools and equipment. 1.1.A
- B Adhere to responsibilities, regulations, and Occupational Safety & Health Administration (OSHA) policies regarding reporting of accidents and observed hazards, and regarding emergency response procedures. 1.1.B
- C Complete a safety test with 100 percent accuracy. For equipment used in the course, complete equipment examinations with 100 percent accuracy in which the student performs an operational checkout by the instructor. Maintain a record of safety examinations and equipment examinations. 1.1.C

The Art & Design Industry 2

1 **Analyze how art and design professionals interact with other professionals within industry. Perform a case study of a company to evaluate the role of art and design professionals within the company. Create an oral, written, or visual presentation of findings. For example, investigate a package designer's interactions with engineers, managers, and assembly crews in a manufacturing company to create package designs for a product.** 2.1

2 **Develop a research paper, media production, or visual display demonstrating the impact of technology and industry trends on the careers of art and design professionals, including the impact on technical work and business management. Write persuasively to describe the personal traits and skills needed for professionals in the field as technology advances and industry trends change, citing an example of an emerging or future technology or trend.** 2.2

Career Exploration 3

1 **Research postsecondary institutions (i.e., colleges of applied technology, community colleges, and four-year universities) in Tennessee and other states that offer art and design programs. Summarize admissions criteria, the postsecondary programs of study, and the secondary courses that will prepare individuals to be successful in an art or design program. Evaluate the tentative career plan developed in the introductory course in light of these findings, and update the career plan to reflect any new discoveries, citing evidence from the research.** 3.1

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Principles of Photography 4

1 **Analyze the relationship between shutter speeds, f-stop, and ISO settings in determining the exposure of an image. Synthesize information from instructional manuals and other resources to appropriately adjust manual camera settings including shutter, ISO, f-stop controls, and white balance to take photographs for a range of settings and content.** 4.1

2 **Identify and differentiate between different lighting techniques, such as strobe lighting, bounce flash, and diffusing devices, describing the purposes and functions of each. Appraise a given setting and content and draw a conclusion about the appropriate lighting techniques to take a quality photograph. Defend choices by citing data and evidence to support claims and address counterclaim(s).** 4.2

3 **Develop photo editing skills by utilizing software operations of advancing complexity to modify and enhance images. For example, use layers to manipulate parts of an image independently or remove objects from an image. Explain the steps required to perform a given photo editing technique in a presentation such as an instructional video or text with supporting graphics.** 4.3

4 **Document photography activity in a photography journal or portfolio. Use proper measurements and terminology to record camera settings and lighting techniques when capturing photographs in a variety of environments. Include any editing techniques performed using software and the resulting photographs. Reflecting on the results, summarize strategies for taking photographs in at least three different environments in a written narrative, citing evidence from supporting texts as well as the finished product.** 4.4

Principles of Illustration 5

1 **Create and modify vector illustrations of increasing complexity. Apply the principles of design and utilize advanced software tools such as live trace, creating gradients, transforming objects, and more.** 5.1

Visual Layouts 6

1 **Use publishing software to create single- and multi-page layouts. Apply and build on compositional techniques learned in the introductory course, including the rule of thirds. Describe the elements of a page layout, including headings, body text, illustrations, frames, color schemes, and white space. Identify and use layout tools such as a grid system, guides, margins, columns, gutters, and rows. Distinguish among measurement and layout terminology such as picas, bleeds, and slugs. Based on a project's theme and the medium of the final product, create comprehensive layouts properly integrating page layout elements, design principles, and compositional techniques.** 6.1

2 **Apply mathematics concepts and measurement techniques to design and finish layouts. Concepts should include, but are not limited to:** 6.2

A Determining and applying the equivalence between fractions and decimals. For example, convert a decimal to a fraction to prepare a unit for measurement on a fractional scale to the precision of 1/16 of an inch. 6.2.A

B Working with units such as feet, inches, meters, centimeters, millimeters, and picas. For example, convert a dimension from centimeters to inches. 6.2.B

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C Performing proportionate reasoning to estimate quantities, such as determining the appropriate scale of an image for a given sheet size. 6.2.C

3 **Apply principles of typography as they relate to layout and page composition in order to appropriately use various forms of type when designing layouts. Employ typography tools to manipulate text within layouts such as threading and flowing text frames. Further, investigate the use of typography as an expressive form. For example, use text as an image or combine type and image into a cohesive form.** 6.3

4 **In teams, use software to create complex layouts, including multiple-page layouts, large displays, and/or product designs (i.e., for corporate branding packages, product-line packaging and marketing, and more). Demonstrate consistency of style throughout the design package while managing the storage of complex files within the selected software environment.** 6.4

5 **Understand the connection between digital layouts and final products, such as understanding the difference between the screen color and the print color. Prepare layouts for production by testing and refining files using pre-flight procedures. Make final products in varying formats, including but not limited to layouts printed on paper and layouts published digitally.** 6.5

Projects 7

1 **Employ research methods when planning a design project, including data collection and analysis. Synthesize research to present appropriate precedents for the development of a project and articulate logical rationale for the use of chosen precedents. Create a detailed presentation or written report, citing evidence from research, which summarizes design decisions in light of research findings. For example, conduct a survey to determine the target audience for a given company branding package, and select colors and symbols based on the target audience.** 7.1

2 **Apply the design process to complete projects of increasing complexity and of varying applications such as print, web, film, and marketing communications. Demonstrate the ability to select and use the appropriate tools and procedures to accomplish project goals. Prepare a persuasive narrative to explain the design to a client, communicating the project in such a way that is understandable to the audience.** 7.2

3 **Utilize the critique and refinement strategy as part of the design process to achieve project goals. As part of a design project, present preliminary design ideas in a way that is understandable to an audience using both visual and verbal explanations. Note constructive criticism received and use it to influence design refinement. Similarly, evaluate the work of others, drawing on design principles and project goals, to provide clear, specific, and constructive feedback.** 7.3

4 **Complete a design project in a specific application (i.e., print, web, film, marketing, or other design communications) using multiple software formats. Referencing supporting evidence such as industry standards, select the appropriate software for each specific task and efficiently manage file content.**

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		Convert and export files as needed for the given application. For example, place photographs and illustrations in publishing software by appropriately linking the files. 7.4
	5	**Explore time management techniques utilized by professionals from case studies or professional organizations, noting key habits and best practices of freelance designers as compared with their salaried peers. Create and implement a work schedule, timeline, and budget for completing a given project.** 7.5
Business Management 8	1	**Analyze the relationship and responsibilities of various parties involved in a business contract. Write a basic contract for design work, such as a graphic designer's contract with a new business to create a marketing package. Emulate a design professional by explaining the contract to a mock client.** 8.1
Portfolio 9	1	**Update materials from coursework to add to the digital portfolio begun in Digital Arts & Design I, including artifacts that demonstrate ability to use industry-specific technology. Continually reflect on coursework experiences and revise and refine the career plan generated in the introductory course. Include written descriptions of project types and learning outcomes.** 9.1