Digital Design for Apparel

Grade(s):	☐K ☐1 ☐2 ☐3 ☐4 ☐5	☐6 ☐7 ☐8	☒9 ☒10 ☒11 ☒12
Discipline/Course:	**Discipline:** Family and Consumer Science **Course:** Fashion Business, Design, and Interior Design		
Course Title:	Digital Design for Apparel		
Prerequisite(s):	n/a		
Course Description: *Program of Studies*	This course is for students interested in any aspect of apparel design for professional or personal use using technology and software. Students will learn to create flats, fabric designs, collections, and a tech pack. Skills learned will be used for original design creation, including but not limited to menswear, womenswear, childrenswear, and athleticwear.		
Course Essential Questions:	● Why is it essential for a fashion designer to use Adobe Illustrator or comparable vector graphics software? ● How are elements and principles of design incorporated into clothing? ● How do graphic design strategies portray a design? ● How does the visual layout of the tech pack portray the desired garment design for manufacturing garments? ● How does a designer visually present their clothing designs?		
Course Enduring Understandings:	● Digital fashion illustration tools help designers save time and money while enhancing their creativity and productivity. ● Fashion designers rely on technical drawings to communicate their ideas to manufacturers.		

	• Software is used to create technical visual representations of fashion designs. • Digital illustration uses precise tools to make it easy to create detailed technical drawings, specifying measurements, seams, and stitching techniques. • Digital design used in fashion helps to develop an understanding of garment construction and the process of accurate specification sheets for sample room and factory use. • Digital Design enhances the visual appearance of a three-piece collection to portray the designer's vision. • Digital design in fashion can help fashion companies understand their customers better and create personalized clothing and collections or lines that meet their needs and preferences.	
Duration: **Credit:**	☒ Semester ☐ Full-Year	☒ 0.5 Credit(s) ☐ 1.0 Credit(s) ☐ 1.5 Credit(s)
Course Materials/Resources:	Software, Internet	
FPS Course Academic Expectation(s):	☒ Exploring and Understanding (EU) ☐ Synthesizing and Evaluating (SE) ☒ Creating and Constructing (CC) ☐ Conveying Ideas (CI) ☐ Collaborating Strategically (CS) ☐ Using Communication Tools (UCT)	
Year at a Glance (Units):	**Unit 1:** Getting Started with Adobe Illustrator (~3 weeks) **Unit 2:** Designing Apparel (~7 weeks) **Unit 3:** Draw and Prepare Technical Flats Specifications for Manufacturing (~5 weeks) **Unit 4:** Designing a Three-piece Collection (~5 weeks)	

Unit Number and Title:	**Unit 1:** Getting Started with Adobe Illustrator
Duration:	~3 weeks
Resource(s):	Software
Unit Overview:	This unit requires students to use software to produce and copy clothing from photographs and renderings.
Standard(s):	**National Standards for Family and Consumer Sciences Education:** **Textiles, Fashion, and Apparel** **Comprehensive Standard**: Integrate knowledge, skills, and practices required for careers in textiles and apparel. 16.1 Analyze career paths within textile apparel and design industries. 16.1.1 Explain the roles and functions of individuals engaged in textiles and apparel careers. 16.1.2 Analyze opportunities for employment and entrepreneurial endeavors. 16.1.3 Summarize education and training requirements and opportunities for career paths in textile and apparel services. 16.1.6 Analyze the role of professional organizations in textiles, fashion, and apparel industries.
Essential Question(s):	Why is it essential for a fashion designer to use Adobe Illustrator or comparable vector graphics software?
Enduring Understanding(s):	● Digital fashion illustration tools help designers save time and money while enhancing their creativity and productivity. ● Fashion designers rely on technical drawings to communicate their ideas to manufacturers.
Learning Goal(s): *Students will know and*	**Content:** (Students will know…)

will be able to use their learning to: (Content/ Skills)	● the critical components of software and terminology to set up the design workspace. Vocabulary to include: panel, layers, template, ruler placement, transparency, fill, stroke, anchor point, direct select, reflect, pathfinder, unite **Skills:** (Students will be able to…) ● navigate the components software using tool panels, control panels, and workspace. ● work to design with the artboard panel and vector tools for selecting, scaling, rotating, anchoring points, and handling.

Unit Number and Title:	**Unit 2:** Designing Apparel
Duration:	~7 weeks
Resource(s):	Software
Unit Overview:	In this unit, students will draw and prepare technical flats specifications for manufacturing garments.
Standard(s):	**National Standards for Family and Consumer Sciences Education:** **Textiles, Fashion, and Apparel** **Comprehensive Standard**: Integrate knowledge, skills, and practices required for careers in textiles and apparel. 16.3 Demonstrate fashion, apparel, and textile design skills. 16.3.7 Demonstrate ability to use technology for fashion, apparel, and textile design.
Essential Question(s):	● How are elements and principles of design incorporated into clothing? ● How do graphic design strategies portray a design?
Enduring Understanding(s):	● Software is used to create technical visual representations of fashion designs. ● Digital illustration uses precise tools to make it easy to create detailed technical drawings, specifying measurements, seams, and stitching techniques.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) ● the elements of design: color, space, line, shape, form, and texture used to draw apparel. ● The principles of design: balance, proportion, emphasis, rhythm, and harmony. ● how a design creates illusions that enhance the appearance of a garment. **Skills:** (Students will be able to…)

	● utilize the key software applications to implement the designing of apparel using the elements of design: color, space, line, shape, form, and texture. ● utilize key software applications to implement the principles of design: balance, proportion, emphasis, rhythm, and harmony. ● create and implement computer-based apparel design using design elements and principles that are visually accurate and pleasing using computer-based design. ● create designs using croqui depictions (a fashion figure depicting the wearing of clothing) and flats (show the design details to help understand the clothing construction).

Unit Number and Title:	**Unit 3:** Draw and Prepare Technical Flats Specifications for Manufacturing
Duration:	~5 weeks
Resource(s):	Software
Unit Overview:	In this unit, students will use software to portray the elements and principles of design in clothing and use various graphic design strategies to portray designs in clothing.
Standard(s):	**National Standards for Family and Consumer Sciences Education:** **Textiles, Fashion, and Apparel** **Comprehensive Standard**: Integrate knowledge, skills, and practices required for careers in textiles and apparel. 16.3 Demonstrate fashion, apparel, and textile design skills. 16.3.2 Apply basic and complex color schemes and color theory to develop and enhance visual effects. 16.3.3 Utilize elements and principles of design in designing, constructing, and/or altering textile, apparel, and fashion products. 16.3.7 Demonstrate ability to use technology for fashion, apparel, and textile design.
Essential Question(s):	How does the visual layout of the tech pack portray the desired garment design for manufacturing garments?
Enduring Understanding(s):	Digital design used in fashion helps to develop an understanding of garment construction and the process of accurate specification sheets for sample room and factory use.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) ● the components of a tech pack for manufacturing a garment, including the technical drawings needed for the process and methods of apparel production. The components include: ○ flat sketches front and back with all design lines.

	○ measurements for sizing information. ○ reference images. ○ garment placement specifications. ○ fabric and notions required. ● the critical design skills used to portray garment designs for specific apparel production. To include seams, topstitching, and zooming in for specific technique portrayal. **Skills:** (Students will be able to…) ● draw and prepare technical flat specifications for manufacturing garments. ● draw and prepare technical flat specifications to include but not limited to seams, darts, notions, and sizing for sample garment manufacturing.

Unit Number and Title:	**Unit 4:** Designing a Three-piece Collection
Duration:	~5 weeks
Resource(s):	Software
Unit Overview:	In this unit, students will use software to design a three-piece original collection for presentation.
Standard(s):	**National Standards for Family and Consumer Sciences Education:** **Textiles, Fashion, and Apparel** **Comprehensive Standard** Integrate knowledge, skills, and practices required for careers in textiles and apparel. 16.3 Demonstrate fashion, apparel, and textile design skills**.** 16.3.1 Explain the ways in which fiber, fabric, texture, pattern, and finish can affect visual appearance. 16.3.2 Apply basic and complex color schemes and color theory to develop and enhance visual effects. 16.3.3 Utilize elements and principles of design in designing, constructing, and/or altering textile, apparel, and fashion products. 16.3.7 Demonstrate ability to use technology for fashion, apparel, and textile design.
Essential Question(s):	How does a designer visually present their clothing designs?
Enduring Understanding(s):	● Digital design enhances the visual appearance of a three-piece collection to portray the designer's vision. ● Digital design in fashion can help fashion companies understand their customers better and create personalized experiences that meet their needs and preferences.
Learning Goal(s): *Students will know and will be able to use their*	**Content:** (Students will know…) ● how a visual board display of a three-piece collection portrays the designer's visual concept and

learning to: (Content/ Skills)	designer's vision. ● how the visual appearance of a three-piece clothing collection communicates the design ideas and specifications for manufacturing the garments. **Skills:** (Students will be able to…) ● design a three-piece original collection to include the title, inspiration, design croqui, technical flats, color, and fabric for the final presentation.