Instructional Framework

Fashion Design and Operations

50.0407.00

This Instructional Framework identifies, explains, and expands the content of the standards/measurement criteria, and, as well, guides the development of multiple-choice items for the Technical Skills Assessment. This document corresponds with the Technical Standards endorsed on January 24, 2024.

Domain 1 Foundations of Fashion
Instructional Time: 40 - 50%

STANDARD 2.0 EXAMINE MEASUREMENT TECHNIQUES IN PATTERN DESIGN, GARMENT MANUFACTURING, AND MERCHANDISING

2.1 Explain factors contributing to accurate body measurement for a well-fitted and enhanced look in clothing, minimizing fabric waste, and providing value to the wearer	- Wearer value through - Minimizing fabric waste by proper pattern placement - Accurate body measurements vs. commercial sizing
2.2 Demonstrate Points of Measure (POM) from starting to ending location, including tolerance [i.e., the acceptable number of inches (plus or minus ½ inch) over specified quality standards], in gathering measurement data (i.e., body length at front, body length at back, chest width, waist width, etc.)	- Points of Measure (POM) - Starting to ending location - Tolerance - The acceptable number of inches (plus or minus ½ inch) over specified quality standards - Measurement data - Torso - Body length at front - Body length at back - Bust/chest width - Waist width - Hip width
2.3 Recognize advanced technology integration for improved measurement accuracy [e.g., Computer-Aided Design (CAD) and 3D body scanning]	- Technology integration for improved measurement accuracy - Computer-Aided Design (CAD) 3D body scanning
2.4 Use anthropometric data (e.g., measuring and analyzing the dimensions and proportions of the human body) to create patterns and garments that accommodate a wide range of body shapes and sizes	- Anthropometric data - Measuring and analyzing the dimensions and proportions of the human body - Body shape and grading

2.5 Describe the functions and types of traditional measurement and pattern drafting tools used in design, manufacturing, and merchandising (i.e., tape measure, rulers and yardsticks, flexible curve ruler, hem/seam gauge, French curve, hip curve, fabric scissors, etc.)	• Functions and types of traditional measurement and pattern drafting tools
	   ○ Tape measure
	   ○ Rulers and yardsticks
	   ○ Flexible curve ruler
	   ○ Hem/seam gauge
	   ○ French curve
	   ○ Hip curve
	   ○ Fabric scissors

2.6 Select the appropriate measurement tool for a specific task in pattern drafting (i.e., French curve for necklines, armholes, and other curves in a garment, etc.)	• Tool selection ○ French curve for necklines, armholes, and other curves in a garment, etc.

2.7 Select the appropriate measurement technique and tools for a specific project requirement (e.g., pleating, seaming, and gathering)	• Technique selection
	   ○ Pleating
	   ○ Seaming
	   ○ Gathering

2.8 Select the appropriate measurement technique and tools for a specific need considering fabric type, thickness, and intended use (e.g., apparel, industrial, and/or medical)	• Technique and tool selection considering fabric type, thickness, and intended use ○ Apparel vs. industrial and medical
2.9 Discuss the advantages and disadvantages of digital cutting tables vs. traditional sewing tools	• Home vs. industrial sewing
STANDARD 3.0 ANALYZE THE PRINCIPLES AND ELEMENTS OF DESIGN	

3.1 Explain how basic design elements (e.g., line, shape, form, space, texture, and color) form structure and convey visual messages	• Elements vs. principles
	• Basic design elements form structure and convey visual messages
	   ○ Line
	   ○ Shape
	   ○ Form
	   ○ Space
	   ○ Texture
	   ○ Color

3.2 Explain how basic design principles (e.g., contrast, balance, emphasis, proportion, hierarchy, repetition, rhythm, pattern, positive and negative space, movement, variety, and unity) are combined with design elements to create harmony	- Elements vs. principles - Basic design principles combine with design elements to create harmony - Contrast - Balance - Emphasis - Proportion - Hierarchy - Repetition - Rhythm - Pattern - Positive and negative space - Movement - Variety - Unity
3.3 Identify terminology related to color theory as an element of science and art (e.g., color wheel; primary, secondary, and tertiary colors)	- Color theory terminology - Color wheel - Primary, secondary, and tertiary colors - Psychology of color - Color scheme
3.4 Differentiate among the three components of color (e.g., hue, saturation, and brightness)	- The three components of color - Hue - Saturation - Brightness
3.5 Identify color scheme on the color wheel and how colors create visually appealing looks in garments, accessories, and fashion collections (e.g., complementary, analogous, warm and cool, and pastels)	- Color scheme on the color wheel - Visually appealing looks - Complementary - Analogous - Warm and cool - Pastels
3.6 Use the Pantone Color Matching System to identify colors, match colors, and provide color data when needed (i.e., included in a tech pack, line sheet, etc.)	- Pantone Color Matching System - Industry-standard - Identify and match colors - Color data - Included in a tech pack, line sheet, etc.

3.7 Explain how the psychology of color can establish harmony, and draw out emotions in garments (i.e., red is strong and powerful; blue portrays calm and sadness; purple is an indication of wealth; etc.)	• Psychology of color
	  o Establishes harmony
	  o Draws out emotions in garments
	  o Create mood in design
	  o Examples
	    ▪ Red is strong and powerful
	    ▪ Blue portrays calm and sadness
	    ▪ Purple is an indication of wealth, etc.

STANDARD 6.0 EXAMINE THE SALE OF GOODS AND SERVICES TO END CONSUMERS THROUGH BRICK- AND-MORTAR AND E-COMMERCE PLATFORMS	

6.1 Describe the tangible customer experience of touching, feeling, and trying on products through a brick-and-mortar platform	• Customer experience
	  o Environment/mood/lighting/music
	• Better evaluation of the product
	  o Tangible/tactile
	• Ability to try on garments

6.2 Explain the advantages of personal interaction from in-store staff that enhances the overall shopping experience (i.e., personalized assistance, advice, styling tips, etc.)	• Personal interaction
	  o Personalized assistance, advice, styling tips, etc.
	  o Knowledgeable sales staff

6.3 Discuss the importance of Point of Sale (POS) efficiency in managing sales transactions and inventory effectively	• Point of Sale (POS) efficiency
	  o Check out speed
	  o Inventory accuracy

6.4 Explain the disadvantages of limited space in a physical store	• Limited space in a physical store o Lower inventory levels
6.5 Discuss the importance of store location to attract foot traffic	• Location preference o Mall vs. strip center vs. freestanding building
6.6 Discuss logistics within a retail store for receiving, marking, stocking, and restocking inventory	• Buying practices • Receiving, marking, and stocking merchandise
6.7 Explain the 24/7 accessibility of an e-commerce platform (e.g., convenience of shopping anytime and anywhere)	• E-commerce platform accessibility o Convenience of shopping anytime and anywhere

6.8 Discuss the advantages and disadvantages of showcasing a wide variety of products, styles, sizes, and unlimited shelf space with online shopping (e.g., positive to the consumer but not always beneficial for the company)	• Advantages and disadvantages of online shopping
	  ○ Positive to the consumer but not always beneficial for the company
	  ○ Broader selection
	  ○ Convenience
	  ○ Price comparison
	  ○ Less waste in production
	  ○ Quality assurance

6.9 Discuss augmented reality (AR) and virtual reality (VR) to allow customers to virtually try on clothing before purchasing	• Augmented reality (AR) • Virtual reality (VR)

6.10 Discuss the challenges of e-commerce shopping (e.g., returning items and lack of physical interaction) and its impact on customer satisfaction	• Challenges of e-commerce shopping
	  ○ Returning items
	  ○ Lack of physical interaction

6.11 Compare and contrast brick-and-mortar and e-commerce platforms in the fashion industry [i.e., operational costs (e.g., rent, utilities, and staff salaries); customer service; inventory and variety; social media, etc.]	• Brick-and-mortar vs. e-commerce platforms in the fashion industry
	  ○ Operational costs
	    ▪ Rent, utilities, and staff salaries
	  ○ Customer service
	  ○ Inventory and variety
	  ○ Social media

6.12 Examine the integration of brick-and-mortar and e-commerce platforms (e.g., order online and pick up and/or return items in-store, and marketing and branding through the same social media platforms)	• Integration of brick-and-mortar and e-commerce platforms
	  ○ Order online and pick up and/or return items in-store
	  ○ Marketing and branding through the same social media platforms

STANDARD 11.0 CONSTRUCT A GARMENT BY PRECISELY APPLYING THE PRINCIPLES OF QUALITY APPAREL CONSTRUCTION	

11.1 Design and plan the creation of a garment (e.g., fabric choice, garment function, and target audience)	• Creation of a garment
	  ○ Design and plan
	    ▪ Fabric choice
	    ▪ Pattern choice
	    ▪ Garment function
	    ▪ Target audience

11.2 Determine yardage, cost of fabric, and other needs (i.e., durability, comfort, care instructions, etc.) appropriate for the garment's purpose	• Yardage, cost of fabric, and other needs appropriate for the garment's purpose
	  o Notions
	  o Durability
	  o Comfort
	  o Care instructions

11.3 Compare the quality of different clothing construction techniques and their financial result (e.g., serged seam vs. wide margin seam)	• Clothing construction techniques
	  o Quality
	  o Financial result
	  o Seam width
	    ▪ Serged seam vs. wide margin seam

11.4 Define terms commonly used in pattern directions and layout (e.g., straight grain, cross grain, bias, selvage, center front, nap, and print matching)	• Terms commonly used in pattern directions and layout
	  o Straight grain
	  o Cross grain
	  o Bias
	  o Selvage
	  o Center front
	  o Nap
	  o Print matching
	  o Symbols and abbreviations

11.5 Interpret and follow pattern directions for constructing apparel including marker-making language [e.g., symbols and notations used (i.e., notches, cutting lines, fold lines, seam allowance, etc.)] to communicate pattern layout and cutting instructions on a marker	• Pattern directions
	  o Following sewing pattern instructions
	  o Marker-making language
	  o Symbols and notations
	    ▪ Notches
	    ▪ Cutting lines
	    ▪ Fold lines
	    ▪ Seam allowance

11.6 Perform pattern layout and cutting for garment construction to minimize waste/cost	• Methods for pattern layout • Follow layout instructions of patterns

11.7 Explain the use of appropriate equipment to practice quality stitching (e.g., sewing machine with various presser feet and stitching options and serger/overlock machine) and effective pressing techniques	• Use of appropriate equipment to practice quality stitching
	  o Sewing machine with various presser feet and stitching options
	  o Serger/overlock machine
	• Effective pressing techniques

(e.g., iron and ironing board for steaming, starching, and pressing throughout project)	○ Iron and ironing board for steaming, starching, and pressing throughout project
11.8 Evaluate the construction and proper fit of garments (i.e., proportion and silhouette, ease and comfort, consistency across sizes, etc.)	• Construction and proper fit of garments ○ Proportion and silhouette ○ Ease and comfort ○ Consistency across sizes
11.9 Focus on details and finishing techniques to contribute to the overall quality of a project (e.g., pockets, trims, buttons, lining, and hand-sewn hems)	• Details and finishing techniques to contribute to the overall quality of a project ○ Pockets, trims, buttons, and lining ○ Hand-sewn vs. industrial hems ○ Seam quality ○ Fabric quality
STANDARD 12.0 PREPARE FASHION DESIGNS	
12.1 Identify various garment styles (i.e., neckline, sleeves, silhouette, hemline, etc.); parts (i.e., bodice, skirt/pants, waistband, cuffs, etc.); and details (i.e., seams, darts, pleats, buttons/fastenings, pockets, embellishments, etc.) that make up a specific garment	• Garment styles ○ Neckline, sleeves, silhouette, hemline, etc. • Garment parts ○ Bodice, skirt/pants, waistband, cuffs, etc. • Details ○ Seams, darts, pleats, buttons/fastenings, pockets, embellishments, etc.
12.2 Describe an 8 head croquis and its proportion and accuracy for creating realistic and lifelike figure drawings (e.g., head-to-body ratio, torso, body divisions, shoulder width, arm and leg length, etc.)	• 8 head croquis ○ Proportion and accuracy ○ Head-to-body ratio, torso, body divisions, shoulder width, arm and leg length, etc.
12.3 Use the proportions of an 8 head croquis to sketch a design	• 8 head croquis proportions
12.4 Use the elongated and exaggerated proportions of a 9 head croquis for fashion illustration and dramatic scale	• 9 head croquis proportions • Fashion illustration • Dramatic scale
12.5 Recognize inclusivity and accessibility in adaptive clothing design for people with physical attributes and disabilities (i.e., magnetic	• Inclusivity and accessibility in adaptive clothing design for people with physical attributes and disabilities ○ Magnetic closures

closures, Velcro fastenings, larger buttons, accommodations for unique body shapes and proportions, etc.)	○ Velcro fastenings ○ Larger buttons ○ Accommodations for unique body shapes and proportions
12.6 Describe how the principles and elements of design are used to effectively create harmony (e.g., pleasing visual unity)	- Principles and elements of design ○ Create harmony (pleasing visual unity) for garments/designs ○ Fashion illustration
12.7 Select appropriate fabrics for a fashion design to create visual appeal, garment comfort, drape, and functionality	- Fabric selection ○ Appeal ○ Garment comfort ○ Drape ○ Functionality
12.8 Identify design features and construction details on a technical flat to communicate a project plan (i.e., neckline, shoulder and armhole, sleeve style, darts and seams, pockets, etc.)	- Design features and construction details on a technical flat to communicate a project plan ○ Neckline ○ Shoulder and armhole ○ Sleeve style ○ Darts and seams ○ Pockets
12.9 Identify computer software and applications for Computer-Assisted Design (CAD) in the fashion industry (e.g., Auto CAD, Photoshop, and Illustrator); 3D fashion design software (i.e., CLO 3D, Browzwear, Seddi Textura); and Pattern-Making Software (i.e., Optitex, Lectra, Gerber AccuMark, Tukatech, etc.)	- Computer software and applications for Computer-Assisted Design (CAD) in the fashion industry ○ Auto CAD, Photoshop, Illustrator 3D fashion design software ○ CLO 3D, Browzwear, Seddi Textura - Pattern-Making Software ○ Optitex, Lectra, Gerber AccuMark, Tukatech
12.10 Select components of an apparel line (i.e., market research, concept and theme, design, fabric sourcing, production planning, branding, etc.)	- Components of an apparel line ○ Market research ○ Concept and theme ○ Design ○ Fabric sourcing ○ Production planning ○ Branding

Domain 2: Operations in Fashion
Instructional Time: 30 - 40%

STANDARD 5.0 ANALYZE THE CHARACTERISTICS, MOTIVATIONS, AND BEHAVIORS OF CONSUMERS IN A TARGET MARKET

5.1 Distinguish quality customer service (i.e., responsive communication, empathy and understanding, problem resolution, being proactive, personal, and available, etc.) from poor customer service (i.e., ignorance, inadequate training, unresponsiveness, temporary fixes, high turnover, etc.)	- Quality customer service - Responsive communication - Empathy and understanding - Problem resolution - Being proactive, personal, and available - Poor customer service - Ignorance - Inadequate training - Unresponsiveness - Temporary fixes - High turnover
5.2 Analyze the relationship between customer service and customer satisfaction in determining the overall success of a business (e.g., sustained success and growth and long-term benefits)	- Customer service vs. customer satisfaction - Sustained success - Growth - Long-term benefits - Customer relations impact on business success
5.3 Explain the concept of a target customer as a marketing and business strategy for attracting and retaining customers (i.e., demographics, behavioral factors, market segmentation, product development, etc.)	- Target customer as a marketing and business strategy - Demographics - Behavioral factors - Market segmentation - Product development
5.4 Discuss how a target customer is a central factor in product selection and development based on the needs and preferences of the customer (i.e., product design and features, pricing, marketing, distribution, etc.)	- Target customer as a central factor in product selection and development - Product design and features - Pricing - Marketing - Distribution
5.5 Distinguish the relationship among pricing, profit, and the customer's perception of value as a strategic approach (i.e., balance	- Pricing, profit, and the customer's perception of value - Balance between setting prices and profit - Creating a positive customer perception of value, etc.

between setting prices and profit, creating a positive customer perception of value, etc.)	

5.6 Compare and contrast common selling techniques to influence customers and increase sales (e.g., suggestion selling, loss leader, upselling, cross-selling, and limited-time offers)	• Common selling techniques to influence customers and increase sales
	   o Suggestion selling
	   o Loss leader
	   o Upselling
	   o Cross-selling
	   o Limited-time offers

STANDARD 7.0 EXAMINE MARKETING SKILLS FOR THE SUCCESS OF A DESIGN AND MERCHANDISING BUSINESS

7.1 Describe how visual merchandising influences customer perception and behavior in the retail environment	• Visual merchandising
	   o Consumer perception and behavior
	   o First impression

7.2 Evaluate the concept of visual merchandising using the principles and elements of design to attract customers and encourage sales (i.e., color to stimulate emotion, line for drawing customer attention to specific products, emphasis for promotional item placement, etc.)	• Principles and elements of design
	   o Application to visual merchandising
	      ▪ Color to stimulate emotion
	      ▪ Line for drawing customer attention to specific products
	      ▪ Emphasis for promotional item placement

7.3 Describe effective uses of social media for fashion marketing to build brand awareness and drive sales [i.e., fashion shows and contests; interactive platforms (i.e., Instagram, Twitter, etc.); fashion tutorials and tips (i.e., YouTube, TikTok, Instagram Reels, etc.)]	• Social media
	   o Consumer influence
	• Effective use
	   o Fashion shows and contests
	   o Interactive platforms
	      ▪ Instagram, Twitter, etc.
	   o Fashion tutorials and tips
	      ▪ YouTube, TikTok, Instagram Reels, etc.

7.4 Compare and contrast social media for fashion design (i.e., Pinterest, Behance, Dribbble, Reddit, etc.) and how current trends and audience demographics can rapidly change platform popularity	• Social media for fashion design o Pinterest, Behance, Dribbble, Reddit, etc.
7.5 Describe the process of fashion forecasting and how it shapes the fashion outlook (e.g., anticipating trends and guiding the decisions of designers and industry professionals)	• Fashion forecasting o Anticipating trends and guiding the decisions of designers and industry professionals

7.6 Discuss the 5 P's of Marketing (e.g., Product, Price, Promotion, Place, and People)	• 5 P's of Marketing
	  o Product
	  o Price
	  o Promotion
	  o Place
	  o People

7.7 Explain types and uses of promotional activities to market products and services (i.e., advertising for brand awareness, sales promotions to boost sales and attract new customers, direct marketing for targeted communication, etc.)	• Promotional activities to market products and services
	  o Advertising for brand awareness
	  o Sales promotions to boost sales and attract new customers
	  o Direct marketing for targeted communication

7.8 Describe ethical behavior in marketing to include moral principles and standards in all aspects of the marketing process	• Ethical behavior in marketing o Moral principles and standards
STANDARD 8.0 DISTINGUISH AMONG DIVERSE INFLUENCES ON THE FASHION DESIGN INDUSTRY	

8.1 Discuss inventions and innovations that had a global impact in fashion, shaping the way people around the world approached clothing and personal style (e.g., cotton gin, sewing machine, the zipper, and paper patterns)	• Inventions and innovations that had a global impact in fashion,
	  o Cotton gin
	  o Sewing machine
	  o The zipper
	  o Paper patterns

8.2 Describe key moments in the 20th century defined by various social, cultural, and political events that influenced the development of American fashion (i.e., World War I, The Roaring Twenties, The Great Depression, Hippie Movement, etc.)	• Key moments in the 20th century that influenced the development of American fashion
	  o World War I and II
	  o The Roaring Twenties
	  o The Great Depression
	  o Hippie Movement

8.3 Explain changes during the 20th century that greatly influenced the development of American fashion [i.e., technological (i.e., mass production techniques, development of synthetic fabrics, etc.); advancements in textile printing techniques (i.e., direct-to-garment, direct-to-fabric, flatbed, etc.); social (i.e., women's liberation, youth culture, globalization, etc.); and cultural (i.e., Golden Age of Hollywood, music and subcultures, casualization of fashion, etc.)]	• 20th-century changes that influenced the development of American fashion
	  o Technological
	    ▪ Mass production techniques
	    ▪ Development of synthetic fabrics
	    ▪ Social media
	  o Advancements in textile printing techniques
	    ▪ Direct-to-garment
	    ▪ Direct-to-fabric
	    ▪ Flatbed

	- Social
	    - Women's liberation
	    - Youth culture
	    - Globalization
	- Cultural
	    - Golden Age of Hollywood
	    - Music and subcultures
	    - Casualization of fashion

8.4 Identify psychological influences on the development of fashion trends (i.e., social identity and conformity; self-expression and individuality; media and celebrity influence; etc.)	- Psychological influences on the development of fashion trends
	    - Social identity and conformity
	    - Self-expression and individuality
	    - Media and celebrity influence

8.5 Explain how values are communicated through clothing and accessories as a form of nonverbal communication (i.e., personal, cultural, and ethnic identity, socioeconomic status, gender identity, etc.)	- Values communicated through clothing and accessories
	    - Personal, cultural, and ethnic identity
	    - Socioeconomic status
	    - Gender identity

8.6 Describe the role of leading designers, celebrities, and other influencers in determining fashion trends (i.e., trends on the runway, celebrity endorsement and red-carpet influence, social media, cultural and social movements, etc.)	- Role of leading designers, celebrities, and other influencers in determining fashion trends
	    - Trends on the runway
	    - Celebrity endorsement and red-carpet influence
	    - Social media
	    - Cultural and social movements

8.7 Discuss the growing awareness of environmental issues focusing on sustainable and eco-friendly fashion as a business approach (e.g., sustainable materials and ethical production practices)	- Environmental issues
	    - Sustainable materials
	    - Ethical production practices
	    - Eco-friendly fashion

STANDARD 9.0 ANALYZE A FASHION DESIGN AND MERCHANDISING BUSINESS	

9.1 Describe employment opportunities in the apparel industry from design and production to retail and marketing	- Career opportunities
	    - Design and production
	        - Garment construction
	    - Retail and marketing
	    - Brand influencer

9.2 Analyze emerging employment opportunities with an emphasis on sustainability and technology (e.g., eco-friendly fashion and digital solutions)	- Emerging employment opportunities - Sustainability related careers - Eco-friendly fashion - Technology related careers - Digital solutions
9.3 Compare and contrast the advantages and disadvantages of sole proprietorships, partnerships, and corporations	Sole proprietorships vs. partnerships vs. corporations
9.4 Identify the stages of apparel production that contribute to the creation of a finished garment (i.e., design sketches and fabrics, pattern templates, prototypes, sewing and assembly, quality control, etc.)	- Stages of apparel production - Design sketches and fabrics - Pattern templates - Prototypes - Sewing and assembly - Quality control
9.5 Differentiate fashion design lines (e.g., the creative and thematic characteristics of a brand) and price points (e.g., the financial piece)	- Fashion brand categories as related to the price point and exclusivity - Haute couture - Designer - Bridge - Contemporary - Moderate - Budget/mass market - Fashion design lines - The creative and thematic characteristics of a brand - Price points - The financial piece
9.6 Categorize clothing based on craftsmanship, exclusivity, and the target market	- Clothing categories as related to craftsmanship, exclusivity, and target market - Haute couture - Designer - Bridge - Contemporary - Moderate - Budget/mass market

9.7 Discuss how design decisions can affect the cost of apparel (e.g., haute couture, designer, bridge, contemporary, moderate, and budget/mass market)	- How design decisions affect the cost of apparel - Haute couture - Designer - Bridge - Contemporary - Moderate - Budget/mass market
9.8 Explain the importance of sourcing as it relates to the design process (e.g., access to materials, components, and resources) necessary to bring creative visions to life (i.e., material selection, cost efficiency, availability of ethical and sustainable sources, etc.)	- Sourcing as it relates to the design process - Access to materials - Components - Resources - Bring creative visions to life - Material selection - Cost efficiency - Availability of ethical and sustainable sources
9.9 Describe the steps in the manufacturing process influenced by sustainability (i.e., labeling and packaging, distribution and retail, etc.)	- Manufacturing process influenced by sustainability - Materials sourcing - Greenwashing - Production techniques - Labeling and packaging - Distribution and retail
9.10 Identify components of trade relations that contribute to the production, distribution, and consumption of fashion products [i.e., global trade agreements and governmental policies; taxes, tariffs, and duties; Intellectual Property Protection (IPP), etc.]	- Components of trade relations - Global trade agreements and governmental policies - Taxes, tariffs, and duties - Import/export costs - Intellectual Property Protection (IPP)
9.11 Identify channels for product distribution (i.e., retailer websites, retailer applications, brick-and-mortar, catalogs, social media, etc.)	- Product distribution channels - Retailer websites - Retailer applications - Brick-and-mortar - Catalogs - Social media

STANDARD 10.0 ANALYZE FACTORS THAT DETERMINE THE SELECTION OF CLOTHING	
10.1 Describe how people use clothing to reflect personal taste and comfort, cultural norms and traditions, societal influence and fashion trends, and functionality (i.e., sports, work, social events, etc.)	- Clothing use - Reflection of personal taste and comfort - Cultural norms and traditions - Modesty, group affiliation, conformity vs. individuality - Societal influence and fashion trends - Functionality - Sports, work, social events, etc.
10.2 Describe how people choose clothing for practicality (i.e., formal vs. casual; warm vs. cold climate; budget/financial considerations, etc.)	- Clothing choice for practicality - Formal vs. casual - Warm vs. cold climate - Budget/financial considerations - Needs vs. wants
10.3 Identify body types and characteristics that influence the proper selection of clothing for comfort and confidence (e.g., anthropometrics and physical attributes)	- Body types and characteristics - Anthropometrics and physical attributes - Body shapes - Pear/triangle - Apple/oval - Hourglass - Rectangle - Athletic/inverted triangle
10.4 Recognize commonly used print to create visually appealing patterns on fabrics (i.e., stripe, dot, directional, plaid, houndstooth, engineered print, graphic/location print, etc.)	- Commonly used print to create visually appealing patterns on fabrics - Stripe - Dot - Directional - Plaid - Houndstooth - Engineered print/digital - Graphic/location print
10.5 Describe how an illusion of size can be created by the proper selection of fabric design (i.e., large vs. small prints; vertical stripes and patterns; horizontal lines, etc.)	- Illusion of size created by fabric design selection - Large vs. small prints - Vertical vs. horizontal lines, stripes, and patterns

10.6 Describe how an illusion of size can be created by the proper selection of fabric texture (i.e., matte vs. shiny fabric; fabric weight and drape; color and contrast, etc.)	• Illusion of size by fabric texture selection
	   o Matte vs. shiny fabric
	   o Fabric weight and drape
	   o Color and contrast

STANDARD 14.0 ANALYZE ETHICAL ISSUES IN FASHION DESIGN AND MANUFACTURING	

14.1 Describe common ethical issues to be considered in sourcing and manufacturing (e.g., workers' rights, pollutants, energy efficiency, and animal rights)	• Ethical issues in sourcing and manufacturing
	   o Workers' rights
	   o Environmental pollutants
	   o Energy efficiency
	   o Animal rights
	   o Pricing

14.2 Explain the more balanced approach to decision making with the "triple bottom line" framework (e.g., financial, social, and environmental) in defining a sustainable and responsible business	• Decision-making with the "triple bottom line" framework
	   o Financial
	   o Social
	   o Environmental

14.3 Differentiate between sustainable fashion (e.g., clothing, accessories, and footwear that are produced and consumed in ways that have a lower impact on the environment, considering the entire lifecycle) and ethical fashion (e.g., fair treatment of workers, including fair labor and fair wages)	• Sustainable fashion
	   o Clothing, accessories, and footwear that are produced and consumed in ways that have a lower impact on the environment, considering the entire lifecycle
	• Ethical fashion
	   o Fair treatment of workers, including fair labor and fair wages

14.4 Identify fashion businesses leading the way toward more sustainable and ethical fashion (i.e., Patagonia, H&M Conscious Collection, Eileen Fisher, etc.)	• Fashion businesses leading the way toward more sustainable and ethical fashion
	   o Brand education and research
	   o Patagonia, H&M Conscious Collection, Eileen Fisher, etc.
	   o Other innovators in sustainable and ethical fashion

14.5 Identify actions taken within the fashion industry to support ethical design, manufacturing, and distribution (e.g., upcycling/recycling materials, "fair trade" and "cruelty-free" labeling, and green/sustainable design practices)	• Ethical design, manufacturing, and distribution actions
	   o Upcycling/recycling materials
	   o "Fair trade" and "cruelty-free" labeling
	   o Green/sustainable design practices

14.6 Explain the concept of greenwashing and the need for transparency and genuine commitment to sustainable and ethical practices in the fashion industry	• Genuine commitment vs. greenwashing
14.7 Explain how the regulation of "green claims" are impacting the fashion industry (i.e., EU, UK, and US movement toward anti-greenwashing directives, regulations, laws, etc.)	• Impact of regulation of "green claims" o EU, UK, and US movement toward anti-greenwashing directives, regulations, laws, etc.

14.8 Discuss how companies capitalize on "fast fashion" methods and the growing concerns about the environmental and social impact on the fashion industry	• "Fast Fashion" methods
	   o Overproduction/quick style turnover
	   o Less expensive clothing
	   o Lower-quality construction and fabric
	   o Environmental waste and impact
	   o Social impact

14.9 Identify advantages of sustainable fashion approaches and closed-loop systems intended to minimize the environmental and social impact of the fashion industry (i.e., repair, redesign, and upcycle; rent, lease, and swap; green and clean; preloved, secondhand, and gently used items; transparency and traceability; etc.)	• Sustainable fashion approaches and closed-loop systems
	   o Minimize environmental and social impact
	       ▪ Repair, redesign, and upcycle
	       ▪ Rent, lease, and swap
	       ▪ Green and clean
	       ▪ Preloved, secondhand, and gently used items
	       ▪ Transparency and traceability

Domain 3: The Fashion Industry
Instructional Time: 15 - 25%

STANDARD 1.0 APPLY MATHEMATICAL CALCULATIONS TO PROJECTS IN DESIGN AND MERCHANDISING

1.1 Use mathematical processes in design and merchandising employing data to establish trends in the industry (e.g., include numeric, symbolic, and/or graphic representations)	• Numeric, symbolic, and/or graphic representations

1.2 Perform mathematical calculations in the context of applying the rule of thumb principle in wholesale pricing (i.e., 30-50% profit margins, wholesale prices vs. retail prices, etc.)	• Mathematical calculations
	   o 30-50% profit margins
	   o Wholesale prices vs. retail prices

1.3 Perform conversions of U.S. and Metric units of measurement	• Equivalents and abbreviations

1.4 Calculate the cost of projects including total person-hours per task and cost of materials	• Calculate math problems ○ Hypothetical scenario

1.5 Calculate percentages in merchandising and manufacturing sales using mathematical formulas (e.g., markup/markdown, gross margin, keystoning, and profit and loss)	• Calculate percentages
	    ○ Markup/markdown
	    ○ Gross margin
	    ○ Keystoning
	    ○ Profit and loss

1.6 Define mass production and its advantages (i.e., division of labor, cost effectiveness, large scale demand, higher profit, etc.) and disadvantages (i.e., capital intensive, errors produced in mass quantities that require costly redesign, repetitive work, etc.)	• Mass production
	    ○ Advantages
	        ▪ Division of labor
	        ▪ Cost-effectiveness
	        ▪ Large scale demand
	        ▪ Higher profit
	    ○ Disadvantages
	        ▪ Capital intensive
	        ▪ Errors produced in mass quantities that require costly redesign
	        ▪ Repetitive work

1.7 Explain the transition from prototype to mass production (i.e., trend/demand research, sketch/design software, raising capital, etc.)	• Transition from prototype to mass production
	    ○ Trend/demand research
	    ○ Sketch/design software
	    ○ Raising capital
	    ○ Tech pack

1.8 Use a fabric weight classification chart to determine the correct fabric for a project (e.g., lightweight, medium weight, and heavyweight)	• Fabric weight classification chart
	    ○ Lightweight
	    ○ Medium weight
	    ○ Heavyweight

STANDARD 4.0 EVALUATE TEXTILES, FIBERS, AND FABRICS FOR THE OVERALL LOOK AND FUNCTIONALITY OF A GARMENT	
4.1 Differentiate among textiles, fibers, and fabrics	• Process of • Fibers vs. fabrics • Fabrics vs. textiles

4.2 Identify the characteristics of natural and synthetic (manufactured) fibers	• Natural vs. synthetic

4.3 Differentiate among the names and characteristics of fabrics with various construction weaves [i.e., plain weave (most cottons, linen, rayon, chiffon, muslin, etc.); twill weave (denim, gabardine, velvet, etc.); and satin weave (crepe, charmeuse, damask, etc.)]	• Names and characteristics of fabrics with various construction weaves
	  ◦ Plain weave
	    ▪ Most cottons
	    ▪ Linen
	    ▪ Rayon
	    ▪ Chiffon
	    ▪ Muslin, etc.
	  ◦ Twill weave
	    ▪ Denim
	    ▪ Gabardine
	    ▪ Velvet, etc.
	  ◦ Satin weave
	    ▪ Crepe
	    ▪ Charmeuse
	    ▪ Damask, etc.

4.4 Differentiate among woven, knit, and other methods of fabric construction (e.g., how fabric looks, handles, and behaves)	• Knit vs. woven ◦ How fabric looks, handles, and behaves

4.5 Identify fabric finishes that improve the appearance, performance, or hand of the finished textile (i.e., washing and drying, heat setting, calendaring, dyeing, coating, etc.)	• Fabric finishes
	  ◦ Washing and drying
	  ◦ Heat setting
	  ◦ Calendaring
	  ◦ Dyeing
	  ◦ Coating, etc.

4.6 Identify healthy, wellness, and cosmetic textiles that promote the well-being of the wearer for comfort, health, or appearance (i.e., antimicrobial, moisture wicking, UV protective fabrics, compression garments, cosmetic infused fabrics, etc.)	• Textiles that promote the well-being of the wearer
	  ◦ Antimicrobial
	  ◦ Moisture wicking
	  ◦ UV protective fabrics
	  ◦ Compression garments
	  ◦ Cosmetic-infused fabrics
	  ◦ Adaptive clothing

4.7 Examine various fabric treatments applied to textiles to enhance their properties or provide specific functionalities (i.e., fireproofing,	• Fabric treatments ◦ Fireproofing

embossed treatment, shrink resistance treatment, wrinkle resistance treatment, starch treatment, etc.)	o Embossed treatment o Shrink resistance treatment o Wrinkle resistance treatment o Starch treatment

4.8 Consider modifications to color prior to color application [e.g., fiber's chemical structure, environment (i.e., sunlight, fumes, ozone, etc.), and laundering (i.e., colorfastness, bleeding, crocking, deodorants; etc.)]	• Modifications to color prior to color application
	o Fiber's chemical structure
	o Environment
	  ▪ Sunlight
	  ▪ Fumes
	  ▪ Ozone
	o Laundering
	  ▪ Colorfastness
	  ▪ Bleeding
	  ▪ Crocking
	  ▪ Deodorants

4.9 Identify color application methods (i.e., solution dyeing, yarn dyeing, piece dyeing, fabric dyeing, garment dyeing, product dyeing, etc.)	• Color application methods o Solution dyeing o Yarn dyeing o Piece dyeing o Fabric dyeing o Garment dyeing o Product dyeing
4.10 Select fibers and fabrics for specific end uses (i.e., polyurethane fibers for lingerie and swimsuits, olefin fibers for sportswear and activewear, etc.)	• Fibers and fabrics for specific end uses o Polyurethane fibers for lingerie and swimsuits o Olefin fibers for sportswear and activewear
4.11 Apply care and content labeling for fabrics to increase garment wear	• Apply required labeling information to care for fabric
STANDARD 13.0 EXPLAIN THE IMPORTANCE OF ACCESSORIES IN FASHION TO ENHANCE AND DEFINE INDIVIDUAL STYLE	
13.1 Identify accessories as a way to express personality, style, and creativity	• Accessories as personality, style, and creativity expression
13.2 Categorize accessories that add a finishing touch to an outfit (i.e., bags, shoes, jewelry, belts, scarves, eyewear, hair accessories, etc.)	• Accessories that add a finishing touch to an outfit o Bags o Shoes

	o Jewelry
	o Belts
	o Scarves
	o Eyewear
	o Hair accessories, etc.

13.3 Identify accessory styles within various categories (i.e., shoes: pumps, sneakers, boots, sandals, etc.)	• Accessory styles within various categories
	  o Shoes: pumps, sneakers, boots, sandals, etc.
	  o Bags: handbags, shoulder bags, totes, cross-body, clutch, etc.

13.4 Recognize how accessories can provide versatility to a simple outfit, incorporate fashion trends, balance and proportion, and functionality to an overall look of an outfit	• Accessories
	  o Add versatility
	  o Functionality
	  o Trends
	  o Balance and proportion

13.5 Recognize quality construction features of different accessories (e.g., jewelry: plating, fasteners; handbags: lining, edging, and hardware)	• Quality construction features of different accessories
	• Production cost
	  o Jewelry: plating, fasteners, metals
	  o Handbags: lining, edging, and hardware

13.6 Recognize methods used to identify counterfeit/knockoff goods (i.e., check quality of logo, stitching, labeling, materials, seams; compare with authentic items; retailer reputation; etc.)	• Counterfeit/knockoff goods identification methods
	  o Check quality of logo, stitching, labeling, materials, seams
	  o Compare with authentic items
	  o Retailer reputation
	  o Authentication measures/serial numbers