

STRANDS AND STANDARDS

SEWING CONSTRUCTION & TEXTILES 3



Course Description

This course will provide students with apparel or interior design opportunities using soft goods/textiles and construction/production skills which will focus on entrepreneurial opportunities and careers in design fields. Experiences may include pattern design, apparel design and construction, fitting and alteration, and interior design projects. (Students can repeat the course for credit as they work towards certification.) Student leadership and competitive events (FCCLA) may be an integral part of the course. **Skills Test #354 (Standards 1-4 Tested)**

Intended Grade Level	10-12
Units of Credit	.5-10
Core Code	34.01.00.00.080
Concurrent Enrollment Core Code	NA
Prerequisite	Sports outdoor sewing 1 & 2 OR Sewing 1 & 2
Skill Certification Test Number	354
Test Weight	0.5
License Type	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Family Consumer Sciences
Endorsement 2	Fashion/Textiles/Apparel
Endorsement 3	Interior Design

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Fashion Design Pathway (Apparel/Textiles/ Entrepreneurship) This pathway provides students the option to explore entrepreneurship, career opportunities and demonstrate advanced skills in apparel construction, textiles and technology. *Standards 1-5*

Interior Design Pathway (Interiors Fabrication/ Textiles/ Entrepreneurship) This pathway provides students the option to explore entrepreneurship, career opportunities and demonstrate advanced skills in interiors fabrication, textiles and technology. *Standards 1-4, 6*

STRAND 1

Students will analyze careers and explore the design industry.

Standard 1

Research employment and entrepreneurial opportunities and preparation for interior and/or fashion design careers.

- Interior Design Careers:
 - **Interior designer:** Make interior spaces functional, safe, and beautiful by determining space requirements and selecting decorative items, such as: colors, lighting, and materials.
 - **Developer:** Plan, create, and present products for a specific market using knowledge of principles and elements of design, aesthetics, and technical skills. Work closely with design and technical teams.
 - **Graphic Designer:** Create visual concepts, by hand or using computer software, to communicate ideas that inspire, inform, or captivate consumers. They develop the overall layout and production design for advertisements, brochures, magazines, and corporate reports.
 - **Art Directors:** Responsible for visual style and images in magazines, newspapers, product packaging, and movie and television productions. They create the overall design of a project and direct others who developed artwork and layouts.
 - **Merchandise displayers/Window trimmers:** Creates fixtures and display stands for events such as large public exhibitions, conferences, trade shows and temporary displays for business, museums, libraries and galleries.
 - **Fabricator:** Assemble finished products and parts that go into them. They use tools, machines, and their hands.
 - **Entrepreneur:** Devise strategies and policies to ensure that an organization meets its goals. They plan, direct, and coordinate operational activities of companies and organizations.
 - **Purchasing/Buyers:** Sources goods to be sold at retail stores or presented in showrooms. (i.e. flooring, upholstery, accessories)
- Fashion Design Careers:
 - **Fashion Designer:** Create original clothing, accessories, and footwear. They sketch designs, select fabrics and patterns, and give instructions on how to make the products they designed.

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- **Developer:** Plan, create and present products for a specific market using knowledge of principles and elements of design, aesthetics, and technical skills. Work closely with design and technical teams.
- **Purchasing/Buyers:** Sources goods to be sold at retail stores. (e.g. - clothing, accessories, footwear, fabrics, notions)
- **Retail Sales:** Assist the customer in brick and mortar store to facilitate their purchase
- **Costume Designer:** A person who designs costumes for film, stage production or television
- **Entrepreneur:** Devise strategies and policies to ensure that an organization meets its goals. They plan, direct, and coordinate operational activities of companies and organizations.

Standard 2

Identify knowledge and skills for selected careers in the interior and fashion design industries.

Employability/Soft Skills

- Organization
- Collaboration/teamwork
- Effective communication
- Values
- Self-representation (e.g. - appropriate language and dress, reliability, etc.)
- Critical thinking
- Technical Skills
- Renderings (hand and digital)
- Reflection/Evaluation
- Client Services (assessing client needs and wants)
- Presentation (visual and oral)

STRAND 2

Students will identify technology used in Fashion Design/Interior Design Fabrication.

*Performance Skills for this strand included below.

Standard 1

Explore with basic design software.

- Identify how CAD (Computer Aided Design) and Vector are used in the fashion and commercial design industry.
 - **CAD:** a program you use to create 2-D and 3-D shapes
 - **Vector:** a graphic that can be scaled and layered in a drawing program
 - CAD and vector programs may be used together to create a complete design

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- Understand what output files, outsourcing, and pattern grading terms are in relationship to design software.
 - **Output files:** Type of file that a digital document can be saved as.
 - **Outsourcing:** Ability to share a file
 - **Pattern Grading:** Procedure for creating different sizes from a pattern **without** new measurements. (block/slope)
- Compare commercial and personal use design software programs used in the fashion and commercial design industry.
 - **Commercial Design software:** The license allows the user to design and sell the product. These programs cost more than personal design programs. Examples are: Adobe Illustrator, Browzwear, Fashion CAD, Gerber Accumark, Gemini Pattern Editor.
 - **Personal Design software:** This product can only be used for personal use, not for resale. Examples are: Adobe Illustrator, Design Sew, and Wild Ginger.

STRAND 3

Identify and choose appropriate fabrics based on fiber properties as it relates to an end product. (To be integrated throughout the course in various projects)

*Performance Skills for this strand included below.

Standard 1

Review and identify characteristics of natural fibers. Consider these fibers in interior and apparel applications.

- **Cotton:** plant source - absorbent, comfortable, durable, wrinkles, shrinks, easy to launder, plant source.
- **Linen:** (flax) plant source - absorbent, natural luster, quick drying, wrinkles, frays, little stretch, plant source.
- **Silk:** (silkworm cocoon) animal source, absorbent, natural luster, insulating, strong, resilient, dyes well, expensive, degrades and yellows from age and sunlight.
- **Wool:** (fur) animal source, absorbent, strong, elastic, fire retardant, shrinks when laundered improperly, wrinkle resistant, warm.

Standard 2

Review and identify characteristics of manufactured fibers. Consider these fibers in interior and apparel applications.

- **Nylon:** synthetic - strong, elastic, water repellent, colorfast, frays easily
- **Polyester:** synthetic - good shape retention, easy to launder, wrinkle resistant, colorfast, blends well with other fibers, retains oily stains.
- **Acrylic:** synthetic – resembles and is generally less expensive than wool, soft, warm, nonabsorbent, pills, heat sensitive, can shrink or stretch.
- **Lyocell:** cellulosic - soft and comfortable, drapes beautifully, blends well with other fibers, wrinkles, dyes well, antibacterial.

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- **Spandex:** synthetic - very elastic, adds stretch when blended with other fibers, requires stretch stitching techniques, shrinks.
- **Olefin:** synthetic - Resists: abrasion, chemicals, stains, mildew, pilling, wrinkles, static. Excellent wicking and thermal warmth, poor dye ability.

Standard 3

Review and identify various types of fabric finishes. Consider these fibers in interior and apparel applications.

- **Fabric Finish:** It improves appearance, hand (feel) and/or performance of textiles.
- **Stain resistant:** Makes fibers less absorbent, so it is easier to lift off or sponge away spills of food, water, and other substances.
- **Fire resistant:** Prevents fabric from supporting or spreading a flame.
- **Wrinkle resistant:** Helps fabric retain its original shape and resist wrinkling.
- **Waterproof:** Fills the pores of a fabric, so water cannot pass through it.
- **Water resistant:** Able to resist the penetration of water to some degree but not entirely.

Standard 4

Explore and identify performance textile technologies.

- **Antimicrobial:** A chemical is added to the solution before being extruded, which kills and inhibits the growth of microorganisms, such as bacteria viruses and fungi.
- **Wicking:** changes the cross-section of the fiber as it is extruded to mimic natural fiber properties, which draws moisture away from the body.

Standard 5

Examine the progression of ethical practices in the textile and apparel industry.

- Explore and identify environmental sustainability practices in the textile and apparel industry.
 - **Ethics:** Moral principles that govern a person's or group's behavior.
 - **Sustainable product:** Meets the needs of the present while making sure future needs are met. Provides environmental, social and economic benefits while protecting the health of the public and the planet.
 - **Environmental Responsibility:** The obligation that a company must operate in a way that protects the environment.
- Human ethical impact of fibers used in the industry.
 - **Fair Trade:** a movement whose goal is to help producers in developing countries to get a fair price for their products. Fair trade helps to provide safe working conditions and improved livelihoods for workers around the world.
 - **USA Fair Trade Organization**
 - **World Fair Trade Organization**
 - **Rainforest Alliance**

STRAND 4

Explore entrepreneurial options in the fashion and interior design industry.

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*Performance Skills for this strand included below.

Standard 1

Students will explore the sequence of steps in establishing a business plan.

1. Introduction:
 - Description of the business and its goals.
 - a. Market research to determine demand for product
 - Ownership of the business and its legal structure.
 - List the skills and experience you bring to the business.
 - Advantages you and your business have over competitors.
2. Marketing:
 - Promote products and services your company will offer.
 - Customer demand for your products and services.
 - Identify your target market, its size and locations.
 - Explain how your products and services will be advertised and marketed.
 - Pricing strategy.
3. Finance & Management:
 - Expected return on investment and monthly cash flow for the first year.
 - Projected income statements.
 - Discuss your break-even point.
4. Operations:
 - Day-to-day operations.
 - Hiring and personnel procedures.
 - Insurance, lease or rent agreements.
 - Equipment necessary to produce your goods or services.
 - Production and delivery of products and services.
5. Concluding statement:
 - Summarize your business goals and objectives and express your commitment to the success of your business. Once you have completed your business plan, review it with a friend or business associate and professional business counselor.
 - Remember, the business plan is a flexible document that should change as your business grows.

Standard 2

Analyze how to determine production cost and MSRP (Manufacturer Suggested Retail Price) of a product.

- **Production Costs**
 - **Material Costs:** the amount of money you spend on raw materials needed to create a product.
 - **Labor Costs:** the number of hours required to make your product and the hourly rate associated with those hours.
 - **Overhead Costs:** any further expenses required for the operation of your business. (equipment, utilities, rent, insurance, taxes)

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- **MSRP (includes production costs and the following)**
 - **Profit Margin:** The amount by which revenue from a sale exceeds cost in a business.
 - **Marketing Costs:** Promotion, distribution, and storage costs associated with goods or services.

Standard 3

Students will be able to explain the basics of the 4P's of marketing.

- **Product:** Any goods, services, or ideas that we wish to sell.
- **Place:** Distribution is getting the right product to the right place at the right time in the right amount and in the right condition.
- **Price:** Determining a dollar amount at which we can sell the product.
- **Promotion:** Making potential customers aware of a product in a positive way so they will want to buy it.

Standard 4

Understand the basics for using credit for business financing.

- **Interest rate:** The proportion of a loan that is charged as interest to the borrower, typically express as an annual percentage of the loan outstanding.
- **Personal guarantee:** Individual agrees to be responsible for the financial obligations of a debtor or borrower to a lender, if the debtor or borrower fails to pay an amount owing under the loan agreement.
- **Loan term:** Monetary loan that is repaid in regular payments over a set period of time. Term loans usually last between one and ten years but may last as long as 30 years in some cases. A term loan usually involves an unfixed interest rate that will add additional balance to be repaid.
- **Ability to repay:** An economic principle stating that the amount of tax an individual pays should be dependent on the level of burden the tax will create relative to the wealth of the individual.

STRAND 5 Fashion Design Pathway

*Performance Skills for this strand included below.

Design projects to include any of the following:

Standard 1

Complete commercial pattern alterations or flat pattern design.

- Basic clothing and/or pattern fitting procedures.

Standard 2

Complete a variety of clothing alterations.

Standard 3

Complete creative ways to recycle or repurpose clothing and/or fabric.

STRAND 6 INTERIOR DESIGN PATHWAY

*Performance Skills for this strand included below.

Design products to include any of the following.

Standard 1

Explore and select specialized textiles for interior décor usage.

Standard 2

Design and fabricate bedding and pillows. (i.e. quilts, comforters, pillow shams, bed skirts, throw pillows, etc.)

- Calculate yardage using industry standard measuring techniques.
- Incorporate principles and elements of design.
- Utilize special construction techniques through completion of any of the above.

Standard 3

Design and fabricate various window treatments. (i.e. valances, draperies, curtains, fabric-covered shades, fabric-covered cornices, etc.)

- Calculate yardage using industry standard measuring techniques.
- Incorporate principles and elements of design.
- Utilize special construction techniques through completion of window project.

Standard 4

Design and fabricate upholstery/slipcovers.

- Identify the basic principles and sequence for reupholstering furniture.
- Identify the equipment needed for the upholstery process.
- Calculate yardage using industry standard measuring techniques.
- Upholster/reupholster a piece of furniture.
- Identify the basic principles and sequence of constructing slipcovers.
- Review the functions and purposes of slipcovers.
- Slipcover a piece of furniture.

Performance Skills

Strand 2

Explore and analyze a current design software App related to the textile design industry in fashion and/or interior design.

Strand 3

Analyze the effects of textile characteristics on design, construction, care, use, and maintenance of products created in class.

Strand 4

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Create a Textile Design Entrepreneurship portfolio containing a written small business plan.
*May consult the FCCLA Entrepreneurship STAR Event as the project model for the entrepreneurship portfolio.

Strand 5 & 6

Create a marketable Fashion Design or Interior Design product.

Resources: Interior Design related careers.

www.utahfutures.org Utah Futures: Good place to find an overview to make lesson plans & how students begin a plan.

www.bls.gov - great overview on Interior Design & related careers. Great [lesson plans help](#).

<http://www1.salary.com/ut/Interior-Designer-II-salary.html> Interior Design jobs Utah: qualifications, requirements for employment, salary schedules, job descriptions.

<http://www1.salary.com/ut/Interior-Designer-II-salary.html>

<http://www.houzz.com> Great visual site that is organized by: designer services, idea books, projects. Very helpful for visual lesson plans!

<http://careerplanning.about.com/od/exploringoccupations/p/interior-designer.html>

Great site for lesson plan helps! Information on: Interior Design Decorator, Commercial Office Design, Job Education, Commercial Architect, Job Careers, Job outlook & salary expectations...

www.fidm.edu Interior Design, Textile Design, Furniture Design. Excellent information on career specifics and classes needed!

www.fitnyc.edu Excellent information on Interior Design and Textile [Design careers](#).

Resources: Fashion Design related careers.

http://careerplanning.com/od/occupations/p/fashion_design.htm Great lesson planning information for: fashion designer, salary schedule, Career planning, starting your career, career advancement.

www.bls.gov/ooh/arts-and-design/fashion-designers.htm Great overview and lesson plans help!

www.fidm.edu Fashion Institute of Design & Merchandising: Amazing information on careers in textile design, jewelry design, textile production, Théâtre costume, visual communication, menswear, etc. Excellent overviews of “any” design career.

www.fitnyc.edu A “myriad” of careers: associate, undergrad, and graduate programs in the Fashion industry. Great resource for teaching.

<http://www.adornit.com/> Alison Linhardt

<http://www.abreeffashion.com> Bree Watkins

Resources

<http://sewingandstyle.blogspot.com/2012/04/best-software-for-pattern-making.html>

www.fairtradeusa.org

<http://www.venturebeat.com/2012/12/24/how-to-price-your-startups-product-right-the-first-time>

<http://www.sba.gov/category/navigation-structure/starting-managing-business/managing-business>

<http://www.youtube.com/channel/UCXfiJBi0kc61V6PMntvsCUA> Video tutorials on various sewing techniques.

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Principles of Flat-Pattern Design: Nora M. MacDonald; 3rd edition, 2002 ISBN: 978-1-56367-851-6. An excellent “high school” level of Pattern Drafting. Very easy for high school students to understand.

Reader’s Digest Complete Guide to Sewing: Complete sewing guide for all Sewing techniques and pattern alterations.

Simplicity’s: Simply the Best Sewing Book; Revised Edition; 2001, ISBN:0-7394-2100-X. Chapters on “any” basic sewing technique, fitting & alterations, specialty fabrics, and even Home Dec Sewing.

Fit for Real People: Palmer/Alto; 1998, ISBN: 978-0-935278-65-1. A very easy guide to fit and alterations. A CD is also available for classroom presentations.

Singer: The Complete Photo Guide to SEWING; 2009, ISBN-13: 978-1-58923-434-5. This book is amazing!!! It has taken the place of all the old “Singer Sewing Books”. It is now all in 1 book! It has one whole chapter just on general pattern alterations. It also has several chapters on advanced sewing techniques.

Book: Patchwork Minus the Mathwork, by Linda Causee—A quilter’s guide to planning and buying fabric

<http://www.bettertext.com/yardage-chart>

Complete Photo guide to Window Treatments; 2007, ISBN-13: 978-1-58923-294-5. As stated, everything you will need to teach a window project in a Home Dec lesson.

Resources:

Singer: The Complete Photo Guide to SEWING; 2009, ISBN-13: 978-1-58923-434-5. This book has all the old “Singer Sewing Books” in one amazing book. There are about 150 pages & 6 chapters devoted to “Home Decorating” Projects. There is any measuring help needed for any Home Dec sewing project. There are great “how to” and ready-made lesson plans for your classrooms. This book contains everything for Home Dec – even including upholstery if needed. This book has all the yardage calculation helps needed for any project.

Workplace Skills

Students will develop professional and interpersonal skills needed for success in the fashion industry.

Determine the difference between hard skills and soft skills.

- **Hard Skills:** Hard skills are specific, teachable abilities that can be defined and measured
- **Soft Skills:** Personal attributes that enable someone to interact effectively and harmoniously with other people.

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Identify soft skills needed in the workplace

- Professionalism
- Respect Legal requirements/expectations
- Good communication skills
- Resourcefulness & creativity
- Work Ethic

FCCLA Integration into Sewing Construction & Textiles 3

STAR Events: Career Investigation, Entrepreneurship, Illustrated Talk, Interpersonal Communications, Job Interview, Life Event Planning, Advocacy, Chapter Service Project Display, Chapter Service Project Portfolio, Leadership, National Programs in Action, Hospitality, Tourism and Recreation.

Skill Demonstration Events: Impromptu Speaking, Hospitality, Tourism and Recreation, Consumer Math.

National Program: Career Connection, Power of One, Leadership Service in Action, Financial Fitness, Leadership Service in Action.

Skill Certificate Test Points by Strand

Example table below. Refer to instructions for specifics.

Test Name	Test #	Number of test Points by Strand					Total Points	Total Questions
Sewing Construction III	354	1	2	3	4		48	37
		3	6	17	11			