

SAN DIEGO COMMUNITY COLLEGE DISTRICT
COLLEGE OF CONTINUING EDUCATION
COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER

CLTX 542

COURSE TITLE

INDUSTRIAL SEWING PRODUCTION SKILLS

TYPE COURSE

NON-FEE

VOCATIONAL

CATALOG COURSE DESCRIPTION

This course builds on the Industrial Sewing Fundamentals course and adds sewn product production skills. Topics include tech-packs, order of operations, labor costing, marking and cutting techniques, production lines, specifications, quality control, finishing and packaging. Hands-on learning is enriched with industry interactions, ethical sustainable practices, and digital technologies. Skills are evidenced through the production of a sewn product. (FT)

LECTURE/LABORATORY HOURS

100 - 108

ADVISORIES

Completion of CLTX 541 Industrial Sewing Fundamentals with a grade of 'C' or better, or equivalent.

RECOMMENDED SKILL LEVEL

Basic computer literacy and knowledge of general math. Sewing experience is helpful but not required.

INSTITUTIONAL STUDENT LEARNING OUTCOMES

1. Social Responsibility
SDCCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
2. Effective Communication
SDCCE students demonstrate effective communication skills.
3. Critical Thinking

SDCCE students critically process information, make decisions, and solve problems independently or cooperatively.

4. Personal and Professional Development

SDCCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self-advocacy skills to cope with changing situations in their lives.

5. Diversity, Equity, Inclusion, Anti-Racism, and Access

SDCCE students critically and ethically engage with local and global issues using principles of equity, civility, and compassion as they apply their knowledge and skills: exhibiting awareness, appreciation, respect, and advocacy for diverse individuals, groups, and cultures.

COURSE GOALS

1. Expand the student's skills in industrial sewing techniques and terminology.
2. Gain an understanding of manufacturing processes for sewn products.
3. Learn to create an order of operations to produce a sewn product.
4. Learn to interpret the tech-pack.
5. Learn to cost labor and materials for a sewn product.
6. Gain an understanding of marking and cutting techniques.
7. Learn about product specifications and quality control.
8. Gain an understanding of finishing procedures and packaging needs for sewn products.
9. Gain an understanding of safety measures and proper ergonomics for industrial sewing and equipment use.
10. Explore ethical and sustainable sewn product manufacturing practices.
11. Explore the various career options and diverse job opportunities that exist in the industry.
12. Increase the understanding of employability skills and their importance in the workplace.

COURSE OBJECTIVES

Upon successful completion of this course, the student will be able to:

1. Use the industrial sewing machines to assemble a product on a production sewing line.
2. Explain the manufacturing processes for sewn products.
3. Create an order of operations to produce a sewn product.
4. Explain the contents of a tech-pack and how it is used.
5. Calculate the labor and materials cost for a sewn product.
6. Create a marker and use it with production cutting techniques to cut out a sewn product for manufacturing.
7. Evaluate product specifications and quality control of a produced sewn product.
8. Demonstrate product finishing and packaging of the sewn product.
9. Organize an ergonomically correct and safe manufacturing workspace.
10. Explain and demonstrate ethical and sustainable sewn product manufacturing practices.

11. Identify and discuss employment possibilities for sewers in different facets of a variety of sewn product manufacturing enterprises.
12. Identify and define employability skills and soft skills needed for employment in the sewn product manufacturing workplace.

SECTION II

COURSE CONTENT AND SCOPE

1. Introduction to Industrial Sewing Production Skills & The Industrial Sewing and Manufacturing Program
 - 1.1. Clothing and Textile (CLTX) programs and pathways
 - 1.1.1. San Diego College of Continuing Education (SDCCE) programs and pathways
 - 1.1.2. Credit by exam
 - 1.2. Course learning management system
 - 1.2.1. Canvas
 - 1.2.2. Other supporting software used
2. The Production Process
 - 2.1. Industrial sewing production terminology
 - 2.2. Technical design
 - 2.3. Production sampling
 - 2.4. Labor and materials costing
 - 2.5. Markers and cutting
 - 2.6. Sewing production
 - 2.7. Pressing
 - 2.8. Finishing
 - 2.9. Inspecting
 - 2.10. Packing and chipping
3. The Tech-Pack
 - 3.1. Flats
 - 3.2. Specifications
 - 3.3. Quality assurance
 - 3.4. Seam types and classification symbol system
 - 3.5. Production samples
 - 3.6. Cut Make Trim (CMT)
 - 3.7. Production vs sample patterns
4. Order of Operations
 - 4.1. Preparing for production
 - 4.2. Building samples
 - 4.3. Testing
 - 4.3.1. Selecting best sewing equipment for materials used
 - 4.3.2. Determining best sewing techniques to use for efficient workflow
 - 4.3.2.1. Unit method of assembly
 - 4.4. Writing the order of operations
 - 4.4.1. Using stitch classifications and codes
 - 4.5. Scheduling and assignments for production line assembly
5. Costing

- 5.1. Materials
 - 5.1.1. Yardage and yields
 - 5.1.2. Trims
 - 5.1.3. Sendouts
 - 5.1.4. Labels
 - 5.1.5. Finishing/packaging needs
- 5.2. Labor
 - 5.2.1. Time studies
- 6. The Cutting Process
 - 6.1. Markers
 - 6.2. Cutting
 - 6.3. Marking for assembly directives
 - 6.4. Safety techniques
 - 6.5. Zero waste and material utilization
 - 6.6. Bundling
- 7. The Sewing Production Line
 - 7.1. Forms
 - 7.2. Daily production goals
 - 7.3. Bundling system moving through the line
 - 7.3.1. Accounting for any send-outs or offline needs
 - 7.4. Quality control
 - 7.4.1. Sizing specifications maintained
 - 7.4.2. Stitch quality
 - 7.5. Pressing
- 8. Finishing Techniques
 - 8.1. Fasteners
 - 8.2. Closures
 - 8.3. Labels
 - 8.4. Tacking
- 9. Final Procedures
 - 9.1. Inspections and testing
 - 9.2. Packaging and shipping
- 10. Safety Precautions and Rules for Industrial Sewing
 - 10.1. Machine operation safety precautions and rules
 - 10.2. Floor safety procedures
 - 10.3. Ergonomic practices
 - 10.4. Organize a workspace
- 11. Employability Skills and Soft Skills
 - 11.1. Communication
 - 11.2. Teamwork
 - 11.3. Critical thinking
 - 11.4. Ethics
 - 11.5. Computer skills
 - 11.6. Soft skills
 - 11.6.1. Flexibility
 - 11.6.2. Life skills
 - 11.6.3. Motivation

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- 11.6.4. Organization
- 11.6.5. Ability to learn new skills
- 11.6.6. Client relations
- 11.6.7. Presentation skills

APPROPRIATE READINGS

Appropriate readings may include but are not limited to, textbooks, equipment manuals, workbooks, instructor-written handouts, trade publications, internet articles, resource manuals, videos, tutorials, and OER related to the industrial sewing trades.

WRITING ASSIGNMENTS

Appropriate writing assignments may include, but are not limited to:

1. Maintaining a portfolio of class notes, technique samples, and assignments
2. Create an order of operation sheet to complete a sewn product project correctly and efficiently.
3. Completion of record keeping forms used during the sewn product construction process.
4. Industry reports.

OUTSIDE ASSIGNMENTS

Outside assignments may include, but are not limited to:

1. Internet research, watching audio-visual materials, reading articles, and referenced resources in further exploration of a class topic as needed to perform successfully in class.
2. Independent research and observation on industry developments, emerging technologies and new trends in industrial sewing trades and manufacturing concepts.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Assignments that demonstrate critical thinking may include, but are not limited to:

1. Student self-evaluation completed on sewing samples and completed product or projects using designated rubric.
2. Creating and utilizing an order of operation sheet to correctly and efficiently complete sewn product projects.
3. Mathematical calculations performed during the manufacturing process.
4. Computing the labor and materials cost of the finished product.
5. Selecting appropriate materials, equipment, and tools to sew a successful product meeting quality standard for its intended use.

EVALUATION

A student's competency will be based on multiple measures of performance. Evaluation of the student's ability will be based on, but not limited to, the following criteria:

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1. Perform in a variety of activities and assignments.
2. Complete written and practical examinations and projects.
3. Student/teacher critiques of student projects.
4. Creation of a skills portfolio and/or resource journal.
5. Contribute to class and group discussions.
6. Maintain attendance and punctuality per current policy.
7. Demonstrate ability to work independently and as a team member.

Upon successful completion of all courses included in the program, a Certificate of Program Completion will be issued.

METHOD OF INSTRUCTION

Methods of instruction may include, but are not limited to:

1. Classroom and streamed lectures
2. Demonstrations
3. Laboratory
4. Classroom or online discussions
5. Web-based resources
6. Work-based learning opportunities
7. Job shadowing
8. Field trips
9. Guest speakers
10. Audio and Visual resources
11. Collaborative learning
12. Individual/small group instruction

TEXTS AND SUPPLIES

1. Sewing for the Apparel Industry, Claire Shaeffer, Pearson, 2nd Edition (December 31, 2011)
2. Joining Textiles: Principles and Applications, Ian Jones, Woodhead Publishing; 1st Edition (February 7, 2013)
3. The Entrepreneur's Guide to Sewn Product Manufacturing, Kathleen Fasanella, Apparel Technical Services Inc. (January 1998)
4. Apparel Manufacturing: Sewn Product Analysis, Grace Kunz and Ruth Glock, Pearson; 4th Edition (June 28, 2004)
5. Apparel Manufacturing Technology, T. Karthik, P. Ganesan, D. Gopalakrishnan, CRC Press; 1st Edition (January 12, 2017)
6. Apparel Production Terms and Processes, Janace E. Bubonia, Fairchild Books; 2nd Edition (January 12, 2017)

Supplies:

Students will need computer and internet access for use outside of the campus classroom and lab.

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PREPARED BY: Shirley Pierson MFA DATE: November 2023

DATA REVISED BY: _____ DATE: _____

Instructors must meet all requirements stated in Policy 5500 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog.

REFERENCES:

San Diego Community College District Policy 5500
California Community Colleges, Title 5, Section 55002
Continuing Education Catalog