



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	FASH
Course Number:	29
Descriptive Title:	Computer Pattern Design/Patternmaking
Division:	Industry and Technology
Department:	Fashion
Course Disciplines:	Fashion, Related Technologies
Catalog Description:	This course covers the application of computer-aided pattern design using TUKATECH software on the TUKAWEB platform to draft patterns, manipulate basic blocks for garment styles, grade patterns and create markers.
Prerequisite:	Fashion 10 with a minimum grade of C or equivalent
Co-requisite:	
Recommended Preparation:	Fashion 26A
Enrollment Limitation:	
Hours Lecture (per week):	2
Hours Laboratory (per week):	3
Outside Study Hours:	4
Total Course Hours:	90
Course Units:	3
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	Prior to July 1992
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	

	Other:
Student Learning Outcomes:	<p>SLO #1 Basic CAD Tools Upon completion of this course, a student will be able to demonstrate the use of basic tools in the Computer - Aided Design software.</p> <p>SLO #2 Computer Grading Upon completion of this course, a student will be able to demonstrate the ability to grade patterns into 3 size ranges using computer grading software.</p> <p>SLO #3 Mini Marker Upon completion of this course, a student will be able to demonstrate the ability to create a mini marker of a fashion garment</p>
Course Objectives:	<ol style="list-style-type: none"> 1. Distinguish between and utilize the tools in the TUKATECH software toolbox to create digital basic patterns. 2. Manipulate digital patterns by moving points and segments, changing types of points, enlarging and decreasing view size, measuring and changing segment lengths, curves, applying notches, and adding seam allowances. 3. Use digital basic blocks to create complete patterns as listed on a pattern card. 4. Create grade libraries and grade complete patterns using the TUKATECH software. 5. Create mini-markers following in the TUKATECH software environment.
Major Topics:	<ol style="list-style-type: none"> I. Principles of manual grading (2 hours, lecture) <ol style="list-style-type: none"> A. Supplies B. Terms C. Understanding how to measure II. Practical measuring (3 hours, lab) <ol style="list-style-type: none"> A. Introducing Spec Sheet B. Measuring basic tee, filling in base size column and all sizes based on plus/minus amounts III. Basic bodice lecture (2 hours, Lecture) <ol style="list-style-type: none"> A. Introducing mathematical grading principles B. Writing bodice grade rules IV. Basic bodice lab (3 hours, lab) <ol style="list-style-type: none"> A. Manually grade the bodice B. Measurement increments and pattern movement V. Basic missy straight sleeve (2 hours, lecture) <ol style="list-style-type: none"> A. Drafting straight sleeve B. Writing sleeve grade rules VI. Basic missy straight sleeve lab (3 hours, lab) <ol style="list-style-type: none"> A. Manually grade the straight sleeve B. Measurement increments and pattern movement VII. Basic missy skirt (2 hours, lecture)

- A. Writing missy skirt, pant and waist band grade rules
- B. Understanding measurement increments

VIII. Basic pant and waistband lab (3 hours, lab)

- A. Writing missy skirt, pant and waistband grade rules
- B. Understanding measurement increments

IX. Childrenswear (2 hours, lecture)

- A. Introducing children's sizing
- B. Writing XS-XL grade rules based on measuring of size range

X. Knock-off children's tights (3 hours, lab)

- A. Demonstration of girl's tights knock-off
- B. Creating first pattern to be graded digitally

XI. Tukatech design software - computer grading introduction (2 hours, lecture)

- A. Manual vs. computer grading
- B. Digital grading functions
- C. The graded nest

XII. The basic pant (3 hours, lab)

- A. Manually grade the pant
- B. Understanding measurement increments

XIII. Tukatech design software - introduction computer pattern design (2 hours, lecture)

- A. Introduction to Tool Bar
- B. Introduction to pattern design tools/function

XIV. Tukatech design software - creating rectangles (3 hours, lab)

- A. Drafting pockets and waistband
- B. Drafting circle skirt to student's own measurements

XV. Tukatech design software (2 hours, lecture)

- A. Tool Bar and design tool testing
- B. Understanding the relationship between the tools

XVI. Tukatech design software - draft shirt (3 hours, lab)

- A. Beginning drafting shirt
- B. Renaming pocket
- C. Creating upper collar, undercollar and intercollar

XVII. Tukatech design software - draft shirt (2 hours, lecture)

- A. Creating body of shirt from block
- B. Printing completed pattern

VIII. Tukatech design software - grade shirt (3 hours, lab)

- A. Grading entire shirt using missy grade rules
- B. Printing completed patterns

XIX. Tukatech design software - pant draft (2 hours, lecture)

- A. Creating pattern card with sketch
- B. Beginning pant draft

XX. Tukatech design software - pant draft (3 hours, lab)

- A. Creating pant pattern
- B. Completing pant pattern

XXI. Tukatech design software - grading pants (2 hours, lecture)

- A. Grading entire pant using men's grade rules
- B. Printing pattern nest

XXII. Tukatech marker making software - marking tights (3 hours, lab)

- A. Introducing Cut Tickets
- B. Girl's tights – mixed sizes and single size
- C. Printing mini-marker

XXIII. Tukatech marker making software - marking pants (2 hours, lecture)

- A. Creating single size marker of pant
- B. Mini marker

XXIV. Tukatech marker making software - marking shirt (3 hours, lab)

- A. Creating a self marker for the shirt
- B. Printing mini marker

XXV. Final project: hoodie design (4 hours, lecture)

- A. Designing and creating graded spec sheet for a personal hoodie
- B. Creating pattern card with sketch

XXVI. Final project: hoodie pattern (6 hours, lab)

- A. Grading hoodie to desired size by using manual grading skills
- B. Knock off hood and walk into neckline of pattern

XXVII. Digitizing field trip (2 hours, lecture)

- A. Digitizing pattern
- B. Plotting pattern

XXVIII. Digitizing field trip (3 hours, lab)

- A. Digitizing pattern
- B. Plotting pattern

	<p>XXIX. Project: hoodie maker (4 hours, lecture)</p> <ul style="list-style-type: none"> A. Using plotted pattern to create a sample marker B. Using sample cutting room techniques to cut the marker from fabric <p>XXX. Project: hoodie sewing (6 hours, lab)</p> <ul style="list-style-type: none"> A. Sewing using industrial overlock B. Sewing using single needle <p>XXXI. Project: hoodie critique (2 hours, lecture)</p> <ul style="list-style-type: none"> A. Individual projects presentation B. Group discussion C. Instructor feedback <p>XXXII. Project: hoodie critique (3 hours, lab)</p> <ul style="list-style-type: none"> A. Group discussion B. Instructor feedback
Total Lecture Hours:	36
Total Laboratory Hours:	54
Total Hours:	90
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Using the TUKATECH pattern software tools, create a pattern for a long sleeve shirt with a pocket. Present a miniature printout of the pattern to the instructor.
Critical Thinking Assignment 1:	Working in pairs, design and execute project - hoodie. Create a Spec Sheet and use manual grading principles to grade a block to your personal size. Use knock-off principles to create a hoodie. Submit completed spec sheet to the instructor.
Critical Thinking Assignment 2:	Digitize pattern, create marker and plot pattern for the hoodie. Cut individual hooded sweatshirt using a group sample marker and sew a fleece and rib sample. Submit hoodie garment to the instructor.
Other Evaluation Methods:	Class Performance Completion Multiple Choice Quizzes True/False
Instructional Methods:	Demonstration Lab Lecture
If other:	
Work Outside of Class:	Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting) Problem solving activity Required reading
If Other:	
Up-To-Date Representative Textbooks:	Moira Doyle and Jason Rodgers. <u>Essentials of Pattern Grading</u> . Hanover Phist. 2003. (Discipline Standard)

Alternative Textbooks:	
Required Supplementary Readings:	Handouts supplied by the instructor
Other Required Materials:	Flash Drive (Four GB minimum) Grading Ruler
Requisite:	Prerequisite
Category:	Sequential
Requisite course(s): List both prerequisites and corequisites in this box.	Fashion-10
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Ability to use a sewing machine safely and understand sewing terms.</p> <p>FASH 10 - Distinguish and differentiate between each major part of the sewing machine and discuss its use and care.</p> <p>Ability to construct a garment.</p> <p>FASH 10 - Construct technique samples demonstrated in the textbook and in lecture/demonstrations and conduct basic pattern alterations.</p> <p>FASH 10 - Select appropriate notions suitable for the fashion fabric to achieve the intended garment design.</p>
Requisite Skill:	or equivalent experience
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	If students have taken an equivalent course at another college or have basic clothing construction experience, they have the experience needed to enroll in this course. Many of our students have worked in the fashion industry and have the needed sewing skills. Students will need clothing construction experience to succeed in this course.
Requisite course:	Fashion 26A
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Understand how to make a garment pattern based on industry standards.</p> <p>FASH 26A - Illustrate basic techniques of drafting by creating original designs and making accurate patterns.</p> <p>FASH 26A - Draft patterns from given fashion sketches or photographs.</p>
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable	
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Chris-Moran Wisdom

Date:	09/01/1988
Original Board Approval Date:	06/21/1999
Last Reviewed and/or Revised by:	Cynthia Gotts
Date:	05/14/2022
Last Board Approval Date:	1/17/2023