FASH 63 Course Outline as of Summer 2005

CATALOG INFORMATION

Dept and Nbr: FASH 63   Title: FLAT PAT DES W/COMP
Full Title: Computer-aided Flat Pattern Design
Last Reviewed: 10/25/2004

Units			Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00		Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00		Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
			Contact DHR	0		Contact DHR	0
			Contact Total	5.00		Contact Total	87.50
			Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00   Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable
Grading: Grade or P/NP
Repeatability: 39 - Total 2 Times
Also Listed As:
Formerly:

Catalog Description:
Computer aided flat pattern development using PWStudio software to create sewn products and apparel. Techniques include modification of basic patterns for apparel fit, creating original designs, size grading, marker making, illustration, surface design, assembly diagrams, archiving and plotting. Focus is on small business.

Prerequisites/Corequisites:

Recommended Preparation:
Course Completion of FASH 70A (or CLTX 70A or CLTX 7A) and Course Completion of CS 101A (or CIS 101A)

Limits on Enrollment:

Schedule of Classes Information:
Description: Computer aided flat pattern development using PWStudio to create sewn products and apparel. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Course Completion of FASH 70A (or CLTX 70A or CLTX 7A) and Course

Completion of CS 101A (or CIS 101A)
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Total 2 Times

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

			Effective:	Inactive:
AS Degree:	**Area**		Effective:	Inactive:
CSU GE:	**Transfer Area**		Effective:	Inactive:
IGETC:	**Transfer Area**		Effective:	Inactive:
CSU Transfer:	Transferable	Effective: Summer 2005	Inactive: Spring 2012	
UC Transfer:		Effective:	Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Upon completion of the course, students will be able to:
1. Create patterns for sewn products and apparel using PWStudio, a CAD program specifically designed for small businesses in the sewing industry.
2. Draw final designs, illustrations, assembly diagrams and flats (line drawings) for the sewn product or garment.
3. Develop existing sloper patterns to create custom-fitted garment patterns for men, women and children.
4. Create complex pattern designs from drawings for sewn products and apparel in standard size ranges.
5. Grade developed patterns for selected sizes using the manufacturer's grade for those sizes.
6. Compose single fabric layer cutting markers for multiple production.
7. Computer archive design components, account information, customer statistics, slopers and pattern designs.
8. Plot/print patterns to full scale and scaled using a variety of methods and hardware.
9. Design and draw surface designs for pattern applique and textile printing.
10. Import and export patterns by Internet to a companion computer.
11. Create a portfolio of a small apparel or product line that includes an example of each deliverable (billable) throughout the pattern production cycle for business and individual marketing and sales promotion.
12. Based on subsequent repeats, students will be able to apply techniques to:
    a. increasingly complex applications

b. increasingly complex patterns
c. fabric manipulation with a variety of fabric textures
d. increasingly complex fitting issues and adjustments
e. gain confidence and speed

Topics and Scope:

I. Drawing for the Sewn Garment or Product, such as Designs, Illustrations, Assembly diagrams, and Flats (line drawings)
 A. Screen Utilities
   1. Coordinate systems
   2. Precision tools
   3. Object selection
   4. Viewing the drawing
 B. Drawing tools
   1. Lines
     a. Continuous
     b. Segments
     c. Perpendicular Lines: Drawing a perpendicular line
     d. Tangent Lines: Extending a line that is too short
   2. Arcs
     a. Drawing arc segments
     b. Perpendicular Arcs: Drawing an arc perpendicular to an end point
   3.Tangent Arcs: Drawing an arc tangent to another entity
     a. Circles: Drawing circles
     b. Ellipses: Drawing ellipses
     c. Polylines: Drawing polylines (with arc segments)
     d. N-Gon (Polygon): Drawing many-sided objects
     e. Rectangles: Drawing rectangles
     f. Filled Faces: Drawing solid, filled planes
   4. Construction Points: Inserting construction points
 C. Modifying Existing Patterns
   1. Copying pattern to files and windows
   2. Creating seam allowances and facings and pockets with offset command
   3. Drawing
     a. Rotating
     b. Stretching
     c. Trimming
     d. Expanding
     e. Creating multiple copies of drawing elements and arranges
     f. Flipping and mirroring drawing elements and original objects
     g. Enlarging or reducing drawing elements
     h. Generating text in drawing
   4. Creating cross-hatchings to designate linings, interfacings and flipped patterns
II. Creating Patterns for Products and Apparel Using PWStudio
 A. Fundamentals
 B. Sloper Library: How to use
 C. Measuring and Designing New Patterns

1. Measuring area, circumference, line lengths and distances
2. Dividing lines or drawing entities
3. Identifying coordinates
4. Controlling the rotation process
5. Transferring all, or part, of a dart from one position to another
6. Placing symbols a measured distance from the designated end of a line, arc or polyline
7. Making darts
8. Slashing and moving or pivoting patterns for design or fit
9. Placement of symbols on finished patterns

III. Processing Finished Patterns
  A. Grading patterns for a full size range
  B. Altering patterns for custom fit
  C. Plotting and printing patterns to scale and full size
  D. Creating the marker pattern for production cutting and pattern layouts
  E. Determining fabric utilization
  F. Working with layers
  G. Working with a variety of linetypes
  H. Setting colors
  I. Pattern blocks
    1. Creating and inserting internal and external pattern blocks
    2. Setting up a Block Library

IV. Working with views, windows, Help and the User's Guide

V. Developing Slopers:
  A. Sizing Categories
  B. Custom Fitting
    1. Men
    2. Women
    3. Disabled

VI. Creating Pattern Designs from Drawings
  A. Sewn products
  B. Apparel

VII. Importing and Exporting Patterns via the Internet

Assignment:

Representative assignments:
Problem solving:
Using PWStudio:
1. Develop six half-scale practice patterns to solve fitting and alteration problems.
2. Develop ten half-scale practice patterns to solve simple and complex original pattern designs, including all text and symbols necessary for construction of the products.
3. Drawing assignments for:
   a. Three illustrations of original designs.
   b. Three "Flats" (line drawings) of illustrations showing construction details.
   c. Three assembly diagrams for non-English speaking employees.

d. Two surface design details for applied or printed decoration of
      finished pattern or textile.
Processing Finished Patterns:
4. Create three printed graded nests of standard sizes and one custom
     graded size for specialty markets.
5. Grade three developed patterns for selected sizes using manufacturer's
     grade for those sizes.
6. Develop existing slopers for six sizing categories to create custom
     fitting basic patterns for men, women and children, including the
     disabled.
7. Create ten complex new pattern designs from drawings for sewn products
     and apparel.
8. Create three printed markers for single layer cutting.
9. Produce observable evidence of computer files of archived information
     and designs.
10. Export two patterns to the instructor's computer/plotter and import a
      pattern in return.
Performance exam:
11. The final project: students will develop and write the concept
      for their own five item product line, integrating all topics to
      show initial drawings and flats, original patterns, graded sizes and
      markers in half scale, hard copy, using portfolio presentation style.
      This portfolio becomes a marketing tool for their business.
12. Objective exam.
13. Reading in assigned text: 15-30 pages per week.
14. Student Workbook of daily assignments.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills
and/or require students to select, organize and explain ideas
in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that
demonstrate competence in computational or non-
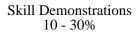computational problem solving skills.

Assignment completion in a final workbook.	Problem solving 40 - 60%

Skill Demonstrations: All skill-based and physical
demonstrations used for assessment purposes including skill
performance exams.

Performance exams, Portfolio.	Skill Demonstrations 10 - 30%

Exams: All forms of formal testing, other than skill performance exams.

Completion	Exams 10 - 20%

Other: Includes any assessment tools that do not logically fit into the above categories.

Grade for repeating students.	Other Category 0 - 10%

Representative Textbooks and Materials:
THE USER'S GUIDE, George and Isabelle Lott, Pattern Works International, 2000.