City College of San Francisco
Course Outline of Record

I. GENERAL DESCRIPTION

A. Approval Date	October 2013
B. Department	Fashion
C. Course Number	FASH 67A
D. Course Title	Computerized Pattern Development:PAD
E. Course Outline Preparer(s)	Wendy Miller
F. Department Chairperson	Diane Green
G. Dean	FOR N. AKINOUYE Nicholas Akinouye

II. COURSE SPECIFICS

A. Hours	Lecture: 3 weekly (52.5 total)
B. Units	3
C. Prerequisites	FASH 26
Corequisites	None
Advisories	None
D. Course Justification	Industry demands that design students be familiar with computer assisted pattern development software. There are many such professional software platforms used in the apparel and sewn products industry, including PAD. Knowledge of any of them facilitates use of all of them. Ability to develop patterns using CAD software packages is necessary for technical fashion professionals.
E. Field Trips	Optional
F. Method of Grading	Letter, Pass/No Pass
G. Repeatability	0

III. CATALOG DESCRIPTION
Overview of the functions and capabilities of the PAD computerized pattern development system. Industry pattern development including drafting, modifying, and grading patterns. Digitizing and plotting patterns.

IV. MAJOR LEARNING OUTCOMES
Upon completion of this course a student will be able to:
A. Describe how computers are integrated into the modern design and production facility.
B. Create, store and access digital pattern files using PAD.
C. Digitally draft basic pattern blocks using PAD.
D. Modify digital pattern blocks to create patterns for original styles using PAD.
E. Digitize full-size paper patterns to create digital patterns using PAD.
F. Grade styles to achieve multiple sizes using PAD.

V. CONTENTS
A. How computers are integrated into the modern design and production facility
   1. CAD pattern development software systems
      a. Gerber Technology's Acumark
      b. PAD
      c. Others
   2. Basic capabilities and functions

a. Drafting pieces
b. Modifying pieces
c. Grading pieces
d. Digitizing paper patterns

3. Transportability of digital files
4. Other computerized functions in the facility
   a. Illustration and design
   b. Cutting systems

B. Creating, storing, and accessing digital pattern files in PAD
   1. Basic commands
   2. Creating and saving files
   3. Accessing files
C. Digitally drafting basic pattern blocks with PAD
   1. Overview of basic functions and commands
   2. Use of commands to create basic pattern blocks
D. Design and modification of digital pattern blocks to create patterns for original styles with PAD
   1. Overview of basic pattern making commands
   2. Use of commands to develop and modify patterns for original styles
E. Digitizing and plotting full-size paper patterns to create digital patterns
   1. Use of digitizer
   2. Use of plotter
   3. Entering pattern data
   4. Testing digitized pattern on plotter
F. Grading styles to achieve multiple sizes
   1. Overview of grading theory and method
   2. Creating grade rules and grading libraries
   3. Applying grade rules to pattern pieces

VI. INSTRUCTIONAL METHODOLOGY
A. Assignments
   1. In class
      a. Observation of lectures/demonstrations of software functions, and participation in classroom discussions
      b. Practice exercises to develop pattern pieces for simple garments, such as a T-shirt, skirt, blouse
      c. Practice exercises involving adding seam allowances, notches, labels, and other markings to pattern blocks
      d. Practice exercises using multiple software functions to modify pattern blocks, such as moving or deleting lines, rotating darts, modifying points
      e. Using a spec sheet to create patterns for a blouse and skirt design
      f. Practice exercises using the digitizer, such as digitizing a paper pattern to create a digital file
      g. Practice exercises using the plotter, such as printing pattern pieces or markers
      h. Development of a full pattern for an original design of the student's choosing
      i. Practice exercises such as making grade rules, and applying them to grade a pattern piece to create multiple sizes
      j. Possible field trips to pattern makers using various CAD systems
   2. Out of class
      a. Readings from textbook, instructor handouts, and program manuals
      b. Practice exercises using student version of PAD, such as modifying a flared skirt with waistband into a straight skirt with facing

c. Projects such as creating function or menu reference cards for individual use
d. Design sketching and research for original pattern ("h" above)

B. Evaluation
1. Participation in demonstrations and classroom discussions
2. In-class and out of class practice exercises
3. Pattern created from a spec sheet
4. Correct use of digitizer and plotter
5. Tests or quizzes on topics such as commands used to create basic pattern blocks, modifying blocks, digitizing paper patterns, grading
6. Final exam on topics such moving or deleting lines, rotating darts, modifying points, or creating grade rules

C. Textbooks and other instructional materials
1. Mullet, Kathy, *Concepts of Pattern Grading: Techniques for Manual and Computer Grading,* Fairchild Publications, 2009
2. PAD Student Exercise Manual
3. Instructor handouts on topics such as production pattern conventions

VII. TITLE 5 CLASSIFICATION
CREDIT/DEGREE APPLICABLE (meets all standards of Title 5. Section 55002(a)).