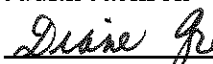
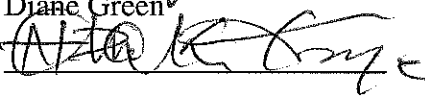


City College of San Francisco
Course Outline of Record

I. GENERAL DESCRIPTION

- | | |
|-------------------------------|---|
| A. Approval Date | September 2013 |
| B. Department | Fashion |
| C. Course Number | FASH 22 |
| D. Course Title | Textile Analysis |
| E. Course Outline Preparer(s) | Judith Jackson |
| F. Department Chairperson | 
Diane Green |
| G. Dean |  |

II. COURSE SPECIFICS

- | | |
|-------------------------|---|
| A. Hours | Lecture: 3 weekly (52.5 total) |
| B. Units | 3 |
| C. Prerequisites | None |
| Corequisites | None |
| Advisories | None |
| D. Course Justification | Fashion designers must understand the characteristics, qualities and behaviors of various textiles in order to create successful designs. Ability to analyze and distinguish between different fiber contents and structures of textiles is essential to specifying the raw materials needed in garment production. |
| E. Field Trips | Yes |
| F. Method of Grading | Letter, Pass/No Pass |
| G. Repeatability | 0 |

III. CATALOG DESCRIPTION

Analysis of the performance and care of natural and man-made textile fibers, yarns, fabrics and other products. Fabric construction methods, fabric identification, dyeing and finishing processes are included. Discussion of current issues and innovations in the textile field.

IV. MAJOR LEARNING OUTCOMES

Upon completion of this course a student will be able to:

- Identify the performance properties and physical characteristics of natural and man-made fibers.
- Describe materials and processes used in making man-made fibers.
- Identify natural and some man-made fibers by means of simple physical and microscopic tests
- Identify the components of yarn construction
- Analyze fabric construction to determine suitability for a particular use based on performance characteristics
- Discern proper care and selection of textile products.

- G. Identify the most common types of fabrics and fabric construction.
- H. Identify common finishes, dyeing and printing techniques


V. CONTENTS

- A. Introduction to basic terms and properties of textile products
- B. Natural fibers: Physical and performance characteristics
 - 1. Cellulosic
 - a. Cotton
 - b. Linen
 - c. Minor cellulosic fibers
 - 2. Protein
 - a. Wool
 - b. Hair fibers
 - c. Silk
- C. Man-made Fibers: Physical and performance characteristics
 - 1. Cellulosic
 - a. Rayon
 - b. Acetate
 - c. Lyocell
 - 2. Synthetic
 - a. Nylon
 - b. Polyester
 - c. Acrylic
 - d. Olefin
 - 3. Recent generic fibers and other minor fibers
- D. Yarn construction and classification
 - 1. Yarn construction and Spinning methods
 - 2. Yarn characteristics
 - 3. Types of yarns:
 - a. Filament
 - b. Simple spun
 - c. Fancy/complex yarns
- E. Fabric construction: weaving
 - 1. Parts of the loom and weaving methods
 - 2. Basic weaves
 - a. Plain
 - b. Twill
 - c. Satin
 - 3. Fancy weaves
 - a. Dobby
 - b. Jacquard
 - 4. Pile weaves: warp and filling pile
- F. Fabric construction: knitting
 - 1. Weft knits
 - a. Single weft knit
 - b. Double weft knit

2. Warp knits
 - a. Tricot
 - b. Raschel
- G. Other fabric construction
 1. Lace
 2. Fiberwebs and non-wovens
- H. Fabric finishes
 1. Functional
 2. Performance
 3. Aesthetic
- I. Dyeing and printing methods
 1. Types of colorants
 2. Methods and stages of dyeing
 3. Printing techniques
 - a. Direct printing
 - b. Resist printing
 - c. Discharge printing
 4. Colorfastness problems

VI. INSTRUCTIONAL METHODOLOGY

- A. Assignments
 1. In-Class
 - a. Participation in class discussions
 - b. Laboratory work, such as looking at the structure of fibers under a microscope, or identifying an unknown fabric using burn tests
 - c. Projects such as looking at fabric samples in order to train the eye and hand to identify various characteristics of fabric
 - d. Field trips such as visits to museums or fabric stores
 2. Out-of-Class
 - a. Assigned readings from textbook or instructor-generated handouts
 - b. Written research report on a textiles related topic approved by the instructor, such as new developments in fabric finishes, or the market prevalence of cotton
 - c. Organizing fabric samples or swatches in a fabric sample reference notebook
 - d. Final capstone project to identify an unknown fabric, including fiber, structure, and finish
- B. Evaluation
 1. Three objective exams on topics such as characteristics of cellulosic fibers, fabric construction methods, or types of weaves
 2. In-class laboratory work
 3. Fabric sample reference notebook
 4. Written research project on a textiles related topic
 5. Final capstone project of identifying an unknown fabric
- C. Textbooks and other instructional materials
 1. Textiles: Basics, 1st ed., Sara Kadolph. Prentice-Hall, 2012

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2. Instructor handouts on topics such as new textile technology or fabric finishes

VII. TITLE 5 CLASSIFICATION

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