1. Catalog description in the style of the University Catalog,
   a) Course number: FCS 3245
   b) Title: Textiles: Color Design Production
   c) Meeting times and credit: 3-0-3
   d) Term(s) to be offered: F, S
   e) Short title: Textiles: Color
   f) Course description: This upper level course will focus on molecular (polymer) structure and its influence on design, fabrication, coloration and manufacturing of apparel, home and commercial textiles.
   g) Prerequisite(s): FCS 2244; Computer and World Wide Web proficiency required.
   h) Initial term of course offering: Spring 2005

2. Student Learning Objectives and Evaluation
   a) List the student learning objectives of the course. Upon completion of this course, students will be able to:
      • demonstrate knowledge of the molecular structure of the major textile fibers,
      • analyze how molecular fiber structure relates to design, fabrication and coloration of fabrics,
      • visually identify apparel and home textile fabrication classifications,
      • create color textile designs using digital textile manufacturing software, and
      • analyze and research textile printing processes.
   b) Indicate how students’ achievement of the stated objectives will be assessed and grades will be earned, based on activities such as projects, reports, research papers, oral presentations, group problem solving, examinations, etc.

      Objective: Demonstrate knowledge of the molecular structure of the major textile fibers will be assessed by examinations questions for part of the 20% of the examinations grade.

      Objective: Analyze how molecular fiber structure relates to design, fabrication and coloration of fabrics will be assessed by students’ review of textile and color research articles assessed as part of the 20% of the examinations grade.

      Objective: Visually identify apparel and home textile fabrication classifications will be assessed by students creating a reference manual with descriptions and fabric swatches for part of design projects for 50% of the total grade

      Objective: Create color textile designs using digital textile manufacturing software will be assessed by students developing a color compliance and repeatable textile design from a series of design project assignments and a final textile design project is to be created to meet the standards to digitally print on silk, cotton or polyester woven fabric for part of 50% of the grade for design projects.

      Objective: Analyze and research textile printing processes, which will be assessed by the research components assigned with the Design projects and Textile Research paper. Students will analyze historical background of printed textiles for apparel, home and commercial markets to be assessed by examination questions (part of 20% of grade) and reference research paper which is 30 % of the grade.

   Students will be evaluated based on the categories listed above.
   Exams                                 20 %
   Textile Research                 30 %
   Design Projects                   50 %

   c) Course will be traditional classroom delivery with computer support.
   d) N/A
   e) This revised course will be writing intensive.
3. Outline of the Course
   a) Specify units of time: The course will be offered in 3-0-3 format.
   b) Traditional classroom delivery with computer support. Three (50 minute) lectures per week for 15
      weeks. Open lab times will allow students to work on design exercises and projects.

   Course Outline is as follows;
   I. Introduction of course and textile printing 1 week
      II. Molecular structure of fibers and digital coloration 2 weeks
         A. Protein fibers
         B. Cellulosic fibers
         C. Synthetic fibers
   II. Color measurement 1.5 week
      A. Equipment
         1. Spectrophotometer
         2. Color viewing stations
      B. Research
   III. Digital ink jet printing integrated with fabrications 8.5 weeks
      A. Wovens
      B. Knits
      C. High durability prints
         1. Washfast
         2. Lightfast
   IV. Color management research 2 weeks
      A. Color output:
         1. Acid and disperse dyes
         2. Pigments
      B. Industrial options

4. Rationale
   a) Purpose and need: This course revision reflects significant changes in apparel and other textile
      coloration, and digital print design industries. There is a high demand for textile color print designers in
      a variety of industries and for those designers to understand color compliance. The change from mass
      production to no-minimum limit printing requests from the supply chain has created demand for trained
      computer print designers to meet consumer’s desire for a greater variety in textile color and design. This
      revision is part of an overall program goal to provide students with additional avenues of
      employment.
   b) Justification of the recommended level of the course and of course prerequisites. The course assumes
      students have computer skills and World Wide Web use skills, a basic understanding of textile fibers
      and fabrications and a maturity level to develop intricate designs that meet color standards.
   c) Similarity to existing courses: There is no similar course on this campus or on other Illinois regional
      university campuses.
   d) Impact on Program(s):
      (1) The course is a required course for students in the Merchandising concentration of the School
      of Family and Consumer Sciences in Business Option.

5. Implementation
   a) Faculty member to whom the course may be assigned. Jean K. Dilworth, Professor in School of Family
      & Consumer Sciences.
   b) Specification of any additional costs to students, including those for supplemental packets,
      hardware/software, or any other additional technical or technological requirements.

      A proposal has been forwarded for a $ 52.00 fee for specific fiber content fabrics for printing, dyes,
      pigments and other consumables required for individual student design projects.
c) Text and supplementary materials to be used, including publication dates.
   Text:


   Color Handbook for Graphic Arts. (2000). Wheaton, IL: BRIDG’S LLC. (Issued as part of class fees.)

6. Community College Transfer

   A community college course will not be judged equivalent to this 3000-level course.

7. Date approved by School of Family & Consumer Sciences: 1-12-04

8. Date approved by the college curriculum committee: 1-29-04

9. Date approved by CAA: 2-19-04