FCS 376 Textile Science 3 hours credit Fall 2007

LOCATION: Room 302, AB2

CLASS MEETING TIMES: 11:00 - 12:30, Tuesday and Thursday

INSTRUCTOR: Janis H. White, Ph.D., CFCS

OFFICE LOCATION: Room 302, AB2

CONTACT INFORMATION: Telephone: 936.294.1184 (24-hour voice mail)

E-mail: jwhite@shsu.edu FAX number: 936.294.4204

OFFICE HOURS: Monday and Wednesday: 9:00 - 11:00 a.m.

Tuesday and Thursday: 8:30 - 10:00 a.m.

COURSE DESCRIPTION: Exploration of textiles from a scientific perspective is emphasized, explaining the

interactions among textile fibers, finishes, dyes and laundry products and

performance criteria. Students are exposed to hands-on experiences with various fibers, finishes and dyeing processes. This course will include a combination of lectures by the instructor, student discussion, and adaptations of textile testing procedures feasible in a limited laboratory situation and designed to allow

students to experience analysis of textile samples for specific characteristics and situations. Assignments will include weekly reports of these structured student exercises and a final project designed for studying a particular fabric in depth to be presented to the class. Exercise worksheets are provided for students and the

format for the final project will be given in class.

COURSE OBJECTIVES:

Economic, technological and legislative factors which concern consumers' selection and maintenance of textiles for clothing and household use are critically examined using a hands-on approach. Upon completion of the course, the student should be able to:

- 1. identify commonly used textile fibers according to readily available means.
- 2. identify the characteristics of commonly used textile fibers.
- 3. analyze fabrics according to construction and finishes.
- 4. identify effective usage of label information.

- 5. use textile terminology correctly.
- 6. demonstrate familiarity with chemical and physical testing procedures developed by the American Association of Textile Colorists and Chemists and the American Society for Testing and Materials.
- 7. interpret test results in regard to consumer-oriented or retail-oriented decisions.

<u>TEXT</u>: Collier, B. J. and H. H. Epps. *Textile Testing and Analysis*, Merrill Publishing, Columbus, Ohio, 1999.

ATTENDANCE POLICY:

Regular and punctual attendance is expected. Each student is allowed two absences during the semester without penalty to the class participation grade. For each absence over the two mentioned above, five (5) points will be subtracted from the class participation grade. It is the STUDENT'S responsibility to ensure that a tardy is recorded as a tardy and not as an absence!! It is recommended that you save these times for possible illnesses, funerals, etc. since there are no "excused" absences. Lab exercises cannot be made up.

COURSE EVALUATION:

Exercise Worksheets (11 @ 15 points each)	165 points
Class Participation	50 points
Midterm Exam	100 points
Final Project	100 points
Final Exam	100 points
Total Possible Points	515 points

Grading Scale: 90 - 100% (minimum of 463.5 points) = A

80 - 89% (minimum of 412 points) = B 70 - 79% (minimum of 360.5 points) = C 60 - 69% (minimum of 309 points) = D 0 - 59% (less than 309 points) = F

ACADEMIC DISHONESTY: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion, and the abuse of resource materials. Cell phones, backpacks, purses, etc. may not be at the student's desk or table during exams. If they are in the classroom during exam time, they may be placed at the front of the room. The student assumes all responsibility for personal property.

CLASSROOM POLICIES AND PROCEDURES:

- 1. There will be one make-up exam at the end of the semester at a time to be announced toward the end of the semester. The student must have appropriate documentation (note from a doctor, an obituary notice that names the student as a survivor of the deceased, etc.) in order to take a make-up exam. The make-up exam will be comprehensive.
- 2. Exercise worksheets are due at the end of the class period in which the work was completed or at the beginning of the next class meeting if samples are wet and need to be dried before the worksheet can be completed. (Do not turn in wet samples!!!) They must be completed in ink, not pencil. Lab worksheets that are due at the beginning of a class meeting and all other assignments are considered late if they are not turned at the beginning of the class meeting on the due date. An assignment will receive an automatic drop of one letter grade for each day the assignment is late.
- 3. Assigned work turned in to the instructor must be the **original** work of the student turning in the assignment.
- 4. Except for the laboratory worksheets and the log portion of the final project, all assigned work turned in for credit **must** be word-processed.
- 5. All assignments must be completed and turned in to the instructor before the final exam can be taken (*Undergraduate Catalog*, p. 74).
- 6. Office telephone number is 926.294.1184 (voice mail is available 24 hours/day) or 926.294.1242 (Ms. Thompson, the FCS secretary). Office hours are posted on the door of AB2, Office 221. The professor's email address is jwhite@shsu.edu.
- 7. On Thursdays, when structured exercises are scheduled, clean work areas before leaving. This includes wiping/washing tabletop area if needed.
- 8. Students will be issued a pair of goggles to wear on days that sodium hydroxide, bleaches, acetone, dyes or detergents are used in the exercises. Students **must** wear goggles on these days.
- 9. Bring your **own** supplies and equipment; constant borrowing will not be tolerated and will affect your class participation grade.
- 10. Take notes during lecture and **bring your notes and textbook** with you to the structured exercises times.

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center, Lee Drain Annex, or by calling 936.294.1720. NOTE: No accommodation can be made until

the student registers with the Counseling Center.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable time frame in which the missed assignments and/or examinations are to be completed.

Q-DROPS:

A Q-drop is a drop made after the last date for tuition refunds (12th class day for fall/spring; 4th class day for summer) but before the date for which a drop would result in a grade of 'F' as published in the Academic Calendar.

Students will be allowed no more than five Q-drops during their academic career at Sam Houston State University. Classes that are dropped prior to the Q-drop date will not count toward the limit. Students who have used their limit of five Q-drops will need to petition their respective dean to drop a class. If the dean refuses to grant permission to drop a class, a student will be required to remain in the class

This limit was effective with the start of the Fall 2004 semester. Any drops accumulated prior to the Fall 2004 semester will not be included in the five Q-drop limit, nor will Q-drops from other universities.

SUPPLIES:

You will not need everything on the list for every exercise. You will be informed ahead of time as to what you need for a particular exercise.

- 1. Laundry marking pen
- 2. Ruler (both metric & English measures)
- 3. Straight pins
- 4. Small glass bowl (or large pickle jar)
- 5. Roll of paper towels
- 6. Tape ½" double-sided and 3/4" single-sided
- 7. Sponge

- 8. Magnifying glass
- 9. Muslin fabric (to be purchased from FMC)
- 10. Rubber gloves
 - 11. Small terry cloth towel
- 12. Goggles
- 13. Pair of tweezers
- 14. Small piece of chipboard (cardboard backing)

READING/ACTIVITY SCHEDULE*:

NOTE: Page numbers are given <u>only</u> when pages are pulled from a chapter. In other words, when a chapter is cited, that means that the student should read the whole chapter.

Tuesday, August 21 Introduction to course, assignments

Thursday, August 23 Textile terminology; Collier & Epps, pp. 71-75, 79-89, 285-288, 355-357

Tuesday, August 28 Review of textile terminology, cont'd. Thursday, August 30 Analysis of textile terms (Ex. #1)

Tuesday, September 4 Identification of fiber families; Collier & Epps, pp. 72-79

Wednesday, September 5 **Departmental Meeting @3:30 p.m.** Be there barring unavoidable conflicts!

Thursday, September 6 Identification of textile fibers (Ex. #2)

Tuesday, September 11 Basic textile testing procedures; Collier & Epps, pp.79-83, 113, 179-191, 225-232

Thursday, September 13 Examination of physical properties (Ex. #3 & 4)

Tuesday, September 18 Continue Ex. 3 & 4 Complete Ex. 3 & 4

Tuesday, September 25 Measurement of hand and drape; Collier & Epps, Chapter 12

Thursday, September 27 Examination of hand and drape (Ex. #5)

Tuesday, October 2 Bleaches and bleaching; Collier & Epps, p. 166, 266-268

Thursday, October 4 Examination of effects of bleaching (Ex. #6)

Tuesday, October 9 Finishes with sodium hydroxide – mercerization and plissé

Thursday, October 11 Examination of mercerization and plissé (Ex. #7)
Tuesday, October 16 ***** MID-TERM EXAMINATION *****
Thursday, October 18 History of natural dyes (lecture & demonstration)

Tuesday, October 23 Modern dye methods; Collier & Epps; pp. 91-92; 315-316

Thursday, October 25 Examination of effects of bleaching and length of time on dyeing (Ex.#8)

Tuesday, October 30 Dye methods continued

Thursday, November 1 Resist dyeing methods (Ex. #9)

Tuesday, November 6 Detergents & laundry additives; Collier & Epps, pp. 157-163, 169-173

Thursday, November 8 Effectiveness of various cleaning/detergent products (Ex. #10)

Tuesday, November 13 Soil and soil release; Collier & Epps, pp. 190-193

Thursday, November 15 Identification of soil & soil removal techniques (Ex. #11)

Tuesday, November 20 Begin Final Project

Thursday, November 22 Thanksgiving Day – Please Drive Safely!! (NO CLASS!!)

Tuesday, November 27 Continue Final Project
Thursday, November 29 Completion of Final Project

Tuesday, December 4 Begin presentation of Final Projects

Thursday, December 6 Continue presentation of Final Projects, review for final exam

Thursday, December 13, 11 a.m.- 1:00 p.m. ***** FINAL EXAMINATION *****

^{*} This schedule will be adhered to in a fairly strict way. I believe that it is VERY important to have discussion/lecture on Tuesday and the related exercise on Thursday of the same week. However, I do reserve the right to make changes in this schedule should they be called for during the semester. I will NOT change the final