

## MDSE 3650 Advanced Textiles

Section/Day/Time/Location:

Lecture: 001/Monday/9:00-10:50pm/Chilton 387

Lab: 301/Wednesday/9:00-10:50pm/Chilton 387

**Instructor:** Mrs. Bruder

**Office:** 355D Chilton Hall

**Phone:** 940-565-2709

**Email:** [kristina.bruder@unt.edu](mailto:kristina.bruder@unt.edu)

**Office Hours:** see Mrs. Bruder's Schedule immediately below; otherwise by appointment only.

**Communications:** All emails must have a subject heading which begins with the following: **MDSE 3650: your subject here ”.**

Mrs. Bruder's Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
900	MDSE 3650-001 Lecture Chilton 387 9:00-10:50 (1 hr. 50 min)	MDSE 3250-001 Lecture ENV 125 9:30-10:50AM (1 hr 20 min)	MDSE 3650-301 Lab Chilton 387 9:00-10:50 (1 hr. 50 min)	MDSE 3250-001 Lab Chilton 345/349 (or ENV 125 when specified) 9:30-10:50AM (1 hr 20 min)	Office Hours (2)
930					
1000					
1030					
1100					
1130					
Noon	MDSE 3250-301 Lab Chilton 387 Noon to 12:50 (50min)		MDSE 3250-302 Lab Chilton 387 Noon to 12:50 (50min)		
1230		MDSE 2650-001 BLB 170 12:30-1:50PM (1 hr. 20 min)		MDSE 2650 -001 BLB 170 12:30-1:50PM (1 hr. 20 min)	
100					
130					
200	Office Hours (2)	MDSE 2650-003 LIFE A 304 2:00-3:20pm (1 hr. 20 min)		MDSE 2650-003 LIFE A 304 2:00-3:20pm (1 hr. 20 min)	
230					
300					
330					
400			MDSE 3250-303 Lab Chilton 387 4:00-4:50 (50min)		
430					

**Description\*:** Evaluate aesthetic, durability, comfort, care, and safety problems associated with consumer textile products. Use AATCC and ASTM standards and procedures, basic research methods, technical and consumer literature, and computer applications to prepare comprehensive textile product evaluation reports.

**Prerequisite:** MDSE 2650 Textiles for Merchandising, E-merchandising, and Designs majors or MDSE 2655 Textiles for Home Furnishings majors (with a grade of C or better)

**Objectives:**

1. Develop a more comprehensive understanding of fibers and fabrics through in-depth swatch analysis.
2. Analyze and compare fabric samples in order to select the best fabric for intended end use by prioritizing product performance needs/wants of the consumer.
3. Using appropriate AATCC and ASTM procedures, identify textile product use problems and write a comprehensive technical textile evaluation report that recommends changes to improve product performance.

**Required Texts:**

- Hatch, K. (1993). Textile Science. St. Paul, Minnesota: West Publishing. (July 2007 update)
- Hatch, K. (2012). Textile Identification Manual with Textile Collection. Tucson, AZ: University of Arizona

**Required Materials:** Linen counter or pick glass, linen pick/pick needle/teaser (UNT Bookstore)

\* Students may vary in their competency levels for these abilities. Expect to acquire this knowledge and these skills only if you honor all course policies, attend classes regularly, complete all assigned work in good faith and on time, and meet all other course expectations of you as a student. The above and included schedule, policies, procedures, requirements and assessments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.

<b>Course Requirements (see "How to Calculate Your Grade So Far" on Blackboard):</b>	<b>Points</b>	<b>Due Dates</b>
<b>Swatch Kit Lab Exercises (22 labs—first lab is 10 points; the next 21 labs @ 15 points (drop lowest scored lab for 20 labs x 15 points):</b> Students will be required to turn in lab assignments completed using the swatch kit. The swatch kit builds as we progress through the semester, so there is no immediate assembly. Lab dates are noted on the course calendar. You are strongly encouraged to review the chapters and material before lab dates. There may be more than one lab per class; a few labs may be completed during lecture.	310	See Course Schedule; some exercises are on lecture days; bring Swatch book every class
<b>Exams: (3 exams @ 80 points)</b> Exams will be divided purposefully between items to assess the students' experience with the reading material and familiarity with the materials presented in class (e.g., handouts, fabric swatch kits, in-class assignments, and lectures). The instructor will keep all exams.	240	2/8 3/29 5/3
<b>Wear Test Report:</b> Guidelines will be distributed at a later date. The Wear Test project will be submitted through Turnitin on Blackboard.	200	4/12
<b>Professional Development:</b> Plan to attend the event below and complete the assignment. Submit on Blackboard under "Assignments". <ul style="list-style-type: none"> <li>• Merchandising EIR: Tuesday, February 7 (TBD); submit 5 quotes from the speaker and state 3 things you learned (limit of one page).</li> <li>• Consumer Symposium Experience, April 6 (TBD): submit 2 quotes from each speaker and state 5 things (total) you learned from the lectures (limit of one page).</li> <li>• If you are unable to attend the symposium, you may either: <ul style="list-style-type: none"> <li>○ Select another campus event with at least one speaker related to career development (obtain approval from me before attending). Do the same assignment as above.</li> <li>○ Select an advanced textile application (review with me before writing the assignment), create 3-4 slide PowerPoint about the textile (title page, what it is/relationship to other textiles, why did it interest you, who makes it, and applications). Present to class during the Advanced Textiles Lecture (3-5 minutes maximum).</li> </ul> </li> </ul>	50	4/19
<b>Fabric Selection Scenario (20 questions@5 points per question):</b> A fabric selection worksheet will be distributed in class. There will be a time limit--an allotted amount of time to complete the analysis. The questions aim to engage students in skillfully applying, analyzing, reasoning, and communicating textile knowledge for the purpose of end use selection.	100	4/26
<b>Mystery Swatch Exercise (1 swatch @100points):</b> A swatch and some other information will be given to you during class. You will be expected to identify the fiber, yarn, fabrication, fabric name as nearly as possible with the skills you learned during labs. Also, you will identify the operations and the order of the operations used to make the fabric. You will propose a care label, the tests necessary to ensure quality, and identify a suitable garment for the fabric (and justify the suitability). You will not use the Swatch Kit. Lab equipment will be available to help with identification.	100	5/1
<b>Total</b>	<b>1000</b>	
<b>Bonus:</b> If 80% of the class completes the SPOT, 10 points will be awarded to each student in the class.	<b>(10)</b>	

## Course Schedule: Advanced Textiles

Key to items displayed: Lecture Topic, *Reading Assignment*, *Lab/Exam due*

	Week	Monday	Wednesday
Fibers & Properties	1	1/16 No Classes	1/18: Introduction and Syllabus, Unit I: The World of Textiles, <i>Read Unit I Chapter 1</i>
	2	1/23: Exercise One: Textile Structure Identification <b>Ex 1A Swatch Preparation, Ex 1B Fabric Component Recognition, and Ex 1C Textile Fabrics and Closely Related Materials</b>	1/25: Unit II: Fiber Structure and Performance <i>Read Unit II Chapters 7-21</i>
	3	1/30: Exercise Two: Fiber Identification <b>Ex 2A Key Fiber Structure Words and Ex 2C Microscopic Examination</b>	2/1: Burn Lab Lecture –Worksheet distribution; Fiber Economics; Wear Test Introduction & Evaluation Procedures <i>Read Unit II Chapters 7-21</i>
	4	2/6: Exercise Two: Fiber Identification <b>Ex 2B Burning Behavior</b>	<b>2/8: Exam 1 – Chapters 1, 7–21;</b> Distribution of Wear Test Materials
Yarns	5	2/13: Unit III: Yarn Structure and Performance <i>Read Unit III Chapters 22-25</i> 1 <sup>st</sup> Wear Test Wash Week (bring worn socks)	2/15: Exercise Three: Yarn Identification <b>Ex 3A Major Types of Yarns</b> <b>Evaluate socks</b>
	6	2/20: Evaluation procedures for Wear Test; <b>Ex 3B Yarn Construction</b> 2 <sup>nd</sup> Wear Test Wash Week (bring worn socks)	2/22: Unit IV: Fabric Structure and Performance <i>Read Unit IV Chapters 26-29;</i> <b>Evaluate socks</b>
Major Constructions	7	2/27: Unit IV: Fabric Structure and Performance <i>Read Unit IV Chapters 26-29;</i> Exercise Four: Fabric Construction Identification; <b>Ex 4A Major Constructions</b> 3 <sup>rd</sup> Wear Test Wash Week (bring worn socks)	3/1 Unit IV: Fabric Structure and Performance <i>Read Unit IV Chapters 26-29</i> <b>Evaluate socks</b>
	8	3/6: Exercise Four: Fabric Structure ID <b>Ex 4B Woven Fabrics</b> 4 <sup>th</sup> Wear Test Wash Week (bring worn socks)	3/8: Unit IV: Fabric Structure and Performance <i>Read Unit IV Chapters 26-29</i> <b>Evaluate socks</b>
		<b>Spring Break</b>	
	9	3/20: Exercise Four: Fabric Structure ID <b>Ex 4C Knit Fabrics</b> 5 <sup>th</sup> Wear Test Wash Week (makeup wash cycle)	3/22: Unit IV: Fabric Structure and Performance <i>Read Unit IV Chapters 26-29</i> <b>Evaluate socks</b>
	10	3/27: Exercise Four: Fabric Structure ID <b>Ex 4D Nonwoven Fabrics and Ex 4E Compound Fabrics</b>	<b>3/29: Exam 2 – Chapters 22-29</b>
Finishes	11	4/3: QC & QA, Testing, ASTM/AATCC (See Blackboard for Supplemental chapter)	4/5: Unit 1: Performance Categories (relevant to Wear Test) <i>Read Unit I Chapters 2-6</i>
	12	4/10: Unit V: Chemical, Mechanical, and Thermal Treatments and Performance <i>Read Unit V Chapters 30-33</i>	4/12: Exercise 5: Finish Identification <b>Ex 5A Finishes that Alter Luster, Ex 5B Finishes that Alter Surface Texture, Ex 5C Finishes that Alter Coloration, and Ex 5D Finishes that Alter Hand and/or Translucence</b> <b>Wear Test due online (11:59pm)</b>
	13	4/17: Unit V: Chemical, Mechanical, and Thermal Treatments and Performance (Coloration) <i>Read Unit V Chapters 34-35</i>	4/19: Exercise 6: Colored Fabric Identification <b>Ex 6A Dyed or Printed and What Method, Ex 6B Fabrics with Checked Designs, Ex 6C Fabrics with Striped Designs, Ex 6D Fabrics with Solid, Muted, or Iridescent Coloration, and Ex 6E Fabrics with Intricate Patterns</b> <b>Professional Development due</b>
	14	4/24 Advanced Textiles & Review	<b>4/26: Fabric Selection Scenario</b>
	15	<b>5/1: Mystery Swatch Exercise</b>	<b>5/3: Exam 3 – Chapters 30-35</b>
	16	(If we postpone Exam 3: Finals Week Wed 9am 5/10)	

## Course Policies Specific to MDSE 3650

### Labs and Swatch Books:

- Bring your swatch book to every day, every class, every lecture and lab. You will always need the swatch book in lab and we often use it in lecture.
- Lab assignments are due on dates outlined in the course calendar at the end of class. Lab assignments are a large portion of your final grade. These activities will aid in reinforcing material discussed in lecture and will help you identify areas of knowledge in which you are weak and need to study more.
- Read the lab before class meetings. Spending too much time reviewing the material in lab will take up valuable time needed for answering questions. There is just enough time in lab to complete the exercises, but you will run out of time if you need to study the lab in order to understand it.
- If you do not have your swatch book or swatches in lab, you will **NOT** be able to complete the scheduled lab assignment. You are welcome to stay in class and follow along with another student; however, you cannot include your name on their lab for credit. **This policy is firm and exceptions will not be made. You will not receive credit for that lab and there is no extra time.**
- The lowest lab grade will be dropped. Note that on any given lab day, there may be more than one lab exercise which must be completed. If you miss a day when there are two or more labs due, you will only be able to drop one lab grade. No makeup or alternate labs will be given.