

13-126e  
 LSC: App-4/3/14  
 UWUCC: App-4/8/14  
 Senate: App-4/29/14

REVISION APPROVAL COVER SHEET FOR CONTINUATION OF W-DESIGNATION

TYPE II DEPARTMENT COMMITMENT

Professor Jin Su

Department Human Development and Environmental Studies

Email jin.su@iup.edu

Course FSMR 434 Quality Control in Textiles

Received  
 JAN 27 2014

Liberal Studies  
 Received

Please provide answers to these questions on the next page:

APR 2 2014

1. Include the most recent syllabus for the Type II course.

Liberal Studies

Addendum: This does not have to be the syllabus of record, since the syllabus of record could potentially be rather dated. These syllabi are not meant to replace the syllabus of record; rather they represent how the department is currently teaching a particular Type II W course. These syllabi **do not** have to be revised using the Liberal Studies objective format.

2. Include a new "Statement Concerning Departmental Responsibility". The statement of departmental responsibility" explains how the department will ensure that the writing component is present regardless of who is teaching the course. It needs to identify the specific department group or individual who is responsible for ensuring this.

Addendum: This section should show how the department is going to support the W nature of a Type II course, not repeat what is being taught in the course. For example, there is no need to repeat the writing criteria (5000 words, essays exams, research papers etc.) in this section as the type of writing and/or assignments might change over the years. The responsibility relies on the department and they should explain how it will be supporting the W course to ensure that it is being taught in the proposed manner. That may be creating a community of writers within the department or a yearly meeting(s) to discuss Type II offerings. It might also be associated with particular outcomes from the course (often in accredited programs).

Approvals:	Signature	Date
Professor (s)	<i>Jin Su</i>	04/01/2014
Department Chair	<i>Frederick B. Brown</i>	4/01/2014
College Dean	<i>See page 2</i>	
Director of Liberal Studies	<i>D. N. King</i>	4/3/14
UWUCC Co-chair(s)	<i>Gail Sechrist</i>	4/8/14

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**REVISION APPROVAL COVER SHEET FOR CONTINUATION OF W-  
DESIGNATION**

**TYPE II DEPARTMENT COMMITMENT**

Professor **Dr. Jin Su, Associate Professor**



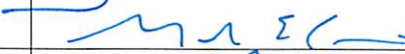

Department **Human Development & Environmental Studies**

Email **Jin.Su@iup.edu**

Course **FSMR 434 Quality Control in Textiles**

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<b>Approvals:</b>	<b>Signature</b>	<b>Date</b>
Professor (s)		01/15/2014
Department Chair		1/15/14
College Dean		1.19.14
Director of Liberal Studies		4/3/14
UWUCC Co-chair(s)		

Received

JAN 27 2014

Liberal Studies

## **TYPE II DEPARTMENT COMMITMENT**

Professor Jin Su Department Human Development and Environmental Studies

Course FSMR 434 Quality Control in Textiles

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## TYPE II DEPARTMENT COMMITMENT

Professor: Dr. Jin Su

Department: Human Development & Environmental Studies

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In the Fashion Merchandising Program, FSMR 434W Quality Control in Textiles is a Fashion Merchandising major required course. This course focuses on the structure-property relationships underlying textile end-use performance and the testing and evaluation of the performance of textile products using testing equipment. The course requirement will be met by completing textile testing labs, essay questions on exams, and additional written assignments. IUP is committed to the improvement of writing skills; therefore, the responsibility for writing must be university wide. This means that writing must be practiced and reinforced throughout the curriculum. Students need to be educated to recognize that writing is a necessary and frequently used skill. Writing assignments must be designed to increase learning by encouraging students to integrate new knowledge with previous knowledge and to teach discipline specific uses of writing. This course has been offered for over ten years as a writing intensive course.

In addition to meeting IUP's Writing Intensive requirements, this course was part of the Fashion Merchandising 5-Year Program Review (2012-2013) and is currently part of the preparation of Fashion Merchandising program and course revision (will be submitted soon).

Over the years, multiple faculty have taught this course. Dr. Bowers, the HDES Department Chairperson, assures that any faculty teaching writing intensive courses, meets or exceeds all requirements, and follows the course syllabus and writing assignments.

The student outcomes for FSMR 434W Quality Control in Textiles are assessed each year. The specific student outcomes that are writing intensive include:

- Eleven lab assignments (two-four pages per lab assignment) throughout the semester (covering Measurement of Temperature and Humidity, Fabric Assessment, Appearance Retention to Laundering-Flat Fabrics, Appearance Retention to Laundering Seams, Dimensional Change in Laundering, and Soil Release, Fabric Strength, Tear Strength, Abrasion Resistance, Pilling, Wrinkle Recovery, Fabric Drape, etc.) There are essay questions on the lab assignments.
- Eleven reading summaries (three-four pages per reading summary) completed throughout the semester
- Two take-home assignments (three-four pages per assignment) in the first half of the semester to identify the organizations engaged in the development of textile standards and specifications, and review the relevant textiles knowledge learned from previous FSMR classes.
- A comprehensive fabric analysis project (10-15 pages), focusing on the interpretation and utilization of test results in all the lab testing assignments throughout the semester. This comprehensive fabric analysis project helps students summarize the lab testing methods and procedures, understand the structure-property relationships underlying textile end-use performance, and develop competencies in improvement of available consumer information.
- Three exams all include essay questions (two-four essay questions per exam), evaluating students understanding of the class content.

Feedback is given to students in a timely manner. Lab assignments are returned in a timely manner in order to provide students with information regarding their strengths and weaknesses in analyzing and synthesizing textile fabric testing results. The lab assignments, reading summaries, take-home assignments, and comprehensive fabric analysis project also provide the student with information and guidance regarding conceptualizing, organizing and presenting written materials. It assures that students develop competencies in use and understanding of standard test methods and procedures and interpretation and utilization of test results. Sixty-nine (69) percent of the course grade is based on writing assignments (exceeding the required 50%).



## FSMR 434 – QUALITY CONTROL IN TEXTILES SPRING 2014

AW1: Tuesday, 9:30 – 11:10am  
A01: Thursday, 9:30 – 11:10am  
A02: Thursday, 12:30 – 2:10pm  
212 Ackerman Hall

### INSTRUCTOR

Dr. Jin Su

Email: [jin.su@iup.edu](mailto:jin.su@iup.edu)

Office: 208 Ackerman Hall

Office Phone: 724-357-3848

Office Hours: Monday & Wednesday: 12:10 – 2:10pm and  
Thursday: 11:15am – 12:15pm  
Or by appointment

### CATALOG DESCRIPTION

Physical properties explored through microscopic examination and use of textile testing equipment for fabric analysis.

### PREREQUISITE

FSMR 314 Textiles or equivalent

### COURSE COMPETENCIES

Through study and analysis students will develop competencies in:

- Specification buying
- Use and understanding of standard test methods and procedures
- Interpretation and utilization of test results
- Improvement of available consumer information

### COURSE OBJECTIVES

At the end of this course, students will be able to:

1. Describe the principles of textile testing.
2. Test and evaluate the performance of textile products using testing equipment.
3. Describe the structure-property relationships underlying textile end-use performance.
4. Identify the organizations engaged in the development of textile standards and specifications.
5. Describe quality control/quality assurance programs in the textile and apparel industry and the specification of acceptable fabric performance based on end use.

### REQUIRED TEXT AND SUPPLIES



Collier, B. J., & Epps, H. H. (1999). *Textile testing and analysis*. Upper Saddle River, NJ: Merrill.

Note: It is also recommended that students have access to a basic textiles textbook.

Supplies: 3 ½ yards of woven fabric, dyed or printed. No loose weaves, white or predominately white, black, or dark navy. The fabric type will be chosen by each student during the first lab session. When purchasing the fabric, get all the information available such as fiber content, manufacturer, and care instructions from the bolt or roll tag. Other supplies needed include scissors or shears for cutting paper and fabric, black (or silver) PERMANENT marker, large envelope for specimen storage, one bottle of Fray Check sealant (this can be shared), basic operation calculator, and tape measure with inches/centimeters.

## LEARNING TECHNIQUES

This course will be taught using a lecture and lab approach. Techniques used for instruction will include lectures, demonstrations, discussions, and hands-on textile testing activities.

**This course is designated as a Writing Intensive course.** The course requirement will be met by completing textile testing labs, essay questions on exams, and additional written assignments. IUP is committed to the improvement of writing skills; therefore, the responsibility for writing must be university wide. This means that writing must be practiced and reinforced throughout the curriculum. Students need to be educated to recognize that writing is a necessary and frequently used skill. Writing assignments must be designed to increase learning by encouraging students to integrate new knowledge with previous knowledge and to teach discipline specific uses of writing.

## UNIVERSITY E-MAIL POLICY

“Indiana University of Pennsylvania provides e-mail services to all students and employees as an official method of communication. Students and employees (except those employees who do not normally have access to e-mail) have a responsibility to read their IUP e-mail accounts and, if responding to or sending e-mail about IUP business, use their IUP e-mail accounts to do so.”

Your IUP email is the only email address that the professor will use to contact you. It is expected all communications are prepared and presented professionally. To communicate professionally and respectfully with the professor, your email should include:

- Email subject including FSMR434
- A greeting
- Clearly written paragraph(s) indicating the question or concern you have
- End the message politely
- Be sure to include your name at the end

## ATTENDANCE, CLASS PARTICIPATION AND CLASS ETIQUETTE

- The attendance policy for this course conforms to the University's Undergraduate Course Attendance Policy in that all students are expected to attend and participate in class to enhance their learning. **Attendance will be checked promptly and recorded at the beginning of class.**

**Arriving Late:** If you arrive after roll has been called, it is incumbent on you, the student, to indicate at the end of class that you were late but present for class. Tardiness is disruptive to the instructor and fellow students. If any student is more than 15 minutes tardy for class, she/he will be considered absent. If tardiness becomes a problem, the instructor reserves the right to deduct points for tardiness at any time during the semester.

**Leaving Early:** Students who leave the classroom before the scheduled end of class without any prior notice will be viewed as absence for the day.

**Attendance policy** recognizes students' need to miss class because of illness or personal emergency. According to IUP University Policy, the limited level of allowable absence is equal to course semester hours, that is, students have 2 allowable absences for this course. Use your allowed absences wisely – save them for those emergencies due to illness, court appearances, family crises, or car trouble. If you find that you have additional emergencies that cause you to miss class beyond the allowed 2 absences, speak to your professor immediately and explain your circumstances. If you have an unavoidable "excused" absence (family crisis, death, or personal illness), you must provide the professor with some type of *documentation* such as an obituary, funeral card, or doctor's excuse form. Documentation is accepted up to 2 weeks after the absence. After the absence, it is your responsibility to arrange a time with the instructor to find out what material you have missed.

Class attendance is your responsibility and your choice: if you choose to miss class, you are choosing to accept the consequences of your actions. It is your responsibility to find out what you missed and to prepare accordingly. **If you are not in class, you are still expected to have the assigned homework complete by the due date.**

- **All students are expected to conduct themselves in a professional manner at all times.** It is expected that you will be respectful to both the professor and other classmates. Class professionalism will be based upon timeliness to class, participation in class discussions, and professional class behavior.

Anything that is disruptive to the class is deemed disrespectful and unprofessional behavior, including the following behavior:

- Consistently arriving late to class without providing a valid reason to the professor
- Leaving early without telling the professor beforehand (The only exception to this is if you become ill during class.)
- Frequent side conversations with other students or talking loudly during lecture that is not related to the course
- Packing your bag before class is finished
- Listening to your music player when lecture is in session
- Inappropriate comments
- Rudeness toward any person



- Sleeping during class
- Doing other course-work in class
- Text Messaging
- Other disrespectful and unprofessional behaviors

**Classroom disruptions will NOT be tolerated.** The professor reserves the right to ask a student to take his/her belongings and leave the class if the student's behavior is inappropriate and disrespectful, and lower his/her grade accordingly if the student repeatedly disrupt class.

- Turn off cell phones, beepers, blackberries, i-pods, etc. – any wireless device that makes noise before class starts. Do not wear Bluetooth ear pieces in class.

1<sup>st</sup> Offense: If a student's cell phone rings or buzzes during class, the student will receive a first warning.

2<sup>nd</sup> and Any Further Offenses: One interruption will equal 1 absence.

- **Your attendance and class participation is tied to your final grade for this class.**

Points for attendance and class participation will be factored into the grade at the end of the semester. After you have missed 2 days of classes, you can expect penalties on your final grade. Class participation includes all in-class activities. If you are not in class, you will not receive credit for the activity. **Each unexcused absence beyond the allowed two absences will result in 5 points deducted from the class attendance and participation points.** However, missing 1/3 of the class will result in an automatic failure in the course.

## ASSIGNMENT REQUIREMENTS

- All take-home assignments must be turned in **at the beginning of the scheduled class.** Assignments turned in after class starts will be counted as late. Do not wait until the last minute to make printouts. Any computer problems will not be excused.

**Email submission of written assignments WILL NOT BE ACCEPTED!**

**Late assignments WILL NOT BE ACCEPTED!**

Please be aware of the fact that **absence from class does NOT relieve the student of the responsibility of turning in the assignments on time.**

**The only exception to this rule** is if you have documentation of an excused absence (i.e., doctor's note, obituary, funeral card). If you have an excused absence the date an assignment is due, your assignment will be expected during the next class period after your return. If you have prior knowledge of an absence, it is expected that your assignment be turned in PRIOR to your absence.

- There are **NO MAKE-UPS FOR IN-CLASS ASSIGNMENTS!** If you are not in class, you will not receive credit for in-class activity.



- **Written Assignments:** All documents must satisfy the requirements as follows:
  - typed and printed on printer,
  - stapled,
  - double-spaced,
  - 10-12 font,
  - 1-inch margins on all sides,
  - title of assignment centered on first page,
  - use of header containing student name at left side and due date on right side,
  - use of appropriate page number,
  - appropriate citation for all references and quotations (APA style in the Publication Manual of the American Psychological Association),
  - accurate spelling and grammar.

Style Manuals & Writing Guides on the Web and at IUP Library:

<http://www.lib.iup.edu/depts/libedu/APAGuide.htm>

IUP Writing Center provides some information about APA Style:

<http://www.iup.edu/page.aspx?id=62399>

Get help from IUP Writing Center <http://www.iup.edu/writingcenter/>

## ACADEMIC INTEGRITY

Students will be expected to do his/her own original work for exams and assignments. Students should NOT make, borrow, or “share” copies of their assignments or files with other students. *Helping one another is allowed, but coping, even electronically, is cheating.* Students should be aware of IUP’s academic integrity policy (IUP Undergraduate Catalog). Failure to comply with this policy will result in a failing grade for the exam/assignment and, perhaps, the course. Therefore, DO NOT JEOPARDIZE YOUR ACADEMIC FUTURE by participating in, or facilitating, any act of academic dishonesty.

## STUDENT DISABILITY SERVICES

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Disability Support Services in 216 Pratt Hall. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Disability Support Services.

## EXAMS

Exams include three exams. **Exams will be in a closed book format.** Exams will primarily consist of multiple choices, matching, true/false, short answers, and essay questions, etc. Questions will be derived from the text and class discussions. Exams will assess your knowledge of concepts and terms. If a student is late for a test, they will NOT be given additional time to complete the exam.



**DO NOT MISS ANY EXAMS.** Makeup exams will NOT be given except in very extenuating circumstances. In documented cases of emergency, please notify the instructor as soon as possible to arrange a makeup test.

## GRADING POLICY

You are responsible for your own learning. Work with your own preferred style of learning to optimize your performance. We will make every effort to keep accurate records. However, it is also students' responsibility to monitor grade reports and keep all materials related to the course.

Your total grade is based on tests, final exam, readings, assignments, projects, and class participation, class attendance and etc. Grades are based on the following point system (please refer to the tables below):

Grading Systems	Points
Three Exams	200
In-class Activities	40
Take-home Assignments (AATCC & ASTM; Textiles Review)	40
Readings (11 Chapters, Each 10 pts)	110
Fabric Analysis Project	50
Lab Assignments (11 Labs)	310
Class Attendance and Classroom Etiquette	50
<b>Total</b>	<b>800</b>

Grade	Points	%
A	$716 \leq A \leq 800$	$90 \leq A \leq 100$
B	$636 \leq B < 716$	$80 \leq B < 90$
C	$556 \leq C < 636$	$70 \leq C < 80$
D	$476 \leq D < 556$	$60 \leq D < 70$
F	$F < 476$	$< 60$

## SELECTED REFERENCES:

American Association of Textile Chemists and Colorists (AATCC) Technical Manual.

American Society for Testing and Materials (ASTM) Annual Book of Standards, Section 7 Vols. 1 and 2.

Booth, J. E. (1969). *Principles of textile testing*. (3rd ed.). New York: Chemical Publishing.

Cohen, A. C. (1986). *Beyond basic textiles*. New York: Fairchild.

Grover, E. B. & Hamby, D. S. (1960). *Handbook of textile testing and quality control*. New York: Wiley-Interscience.

Joseph, M. (1986). *Introductory textile science*. (5th ed.). New York: Holt, Rinehart and Winston.

Kadolph, S. (1998). *Quality assurance for textiles and apparel*. New York: Fairchild.

Lyle, D. (1977) *Performance of textiles*. New York: Wiley.

Merkel, Robert. (1991). *Textile product serviceability*. New York: Macmillan.

Morton, W. E. & Hearle, J. W. S. (1975). *Physical properties of textile fibres*. New York: Wiley.

Solinger, J. (1988). *Apparel manufacturing handbook*.

Smith, B. F. & Block, I. (1982). *Textiles in perspective*. New Jersey: Prentice Hall.

**FSMR 434 Quality Control in Textiles**

AW1: Tuesday, 9:30 – 11:10am

A01: Thursday, 9:30 – 11:10am

A02: Thursday, 12:30 – 2:10pm

212 Ackerman Hall

**Tentative Schedule for Spring 2014**

Week	Date	Topics and Assignments	Chapter	Due Date
1	01/21 T 01/23 R	Introduction/ Course Syllabus Lecture #1: Introduction to testing —Why are fabrics tested?	Ch1	
2	01/28 T 01/30 R	Lecture #1 – Continue Lecture #2 – Government and Industry Regulating Bodies, Standards, Test Methods, and Performance Specifications	Ch2	
3	02/04 T 02/06 R	Lecture #3 – Reliability & Validity Lecture #4 – Temperature and Moisture Relationships, Effects of Moisture Content on Test Results	Ch3	
4	02/11 T 02/13 R	Readings (Ch2~Ch4) <i>Lab #1 – Measurement of Temperature and Humidity</i>	Ch4	Lab #1 Due on 02/13
5	02/18 T 02/20 R	<b>Exam #1 (Ch1, Ch2, Ch3, and Ch4)</b> Lecture #5 – Characterizing a Fabric	Ch5	Readings (Ch2~Ch4) Due on 02/18
6	02/25 T 02/27 R	Lecture #5 – Continue Lecture #6 – Sampling Plans <i>Lab #2 – Fabric Assessment</i>		Lab #2 Due on 02/27
7	03/04 T 03/06 R	Lecture #7 – Measures of Fabric Strength and Elongation <i>Labs #3 ~ #6 Appearance Retention to Laundering-Flat Fabrics, Appearance Retention to Laundering Seams, Dimensional Change in Laundering, and Soil Release</i>	Ch6	
8	03/11 T 03/13 R	Lecture #8 – Effects of refurbishing textiles and appearance retention <i>Lab #3 Continue</i>	Ch8 & Ch9	



9	03/18 T 03/20 R	(No Class) Thanksgiving Recess (No Class) Thanksgiving Recess		
10	03/25 T 03/27 R	Lecture #9 – Abrasion resistance and wear  <i>Labs #3 ~ #6 (Cont.)</i>	Ch7	Labs #3~#6 Due on 03/27
11	04/01 T 04/03 R	Readings (Ch5~Ch9)  <i>Labs #3 ~ #6 (Cont.)</i>		
12	04/08 T 04/10 R	<b>Exam #2 (Ch5, Ch6, Ch7, Ch8, and Ch9)</b>  <i>Labs #7 ~ #11: Fabric Strength, Tear Strength, Abrasion Resistance, Pilling, Wrinkle Recovery, Fabric Drape</i>	Ch10 & Ch11	Readings (Ch5~Ch9) Due on 04/08
13	04/15 T 04/17 R	Lecture #11 – Fabric Hand and Drape Lecture #12 – Comfort: Absorbency & Resistance  <i>Labs #7 ~ #11 (Cont.)</i>	Ch12 & Ch13	
14	04/22 T 04/24 R	Lecture #10 – Color and Colorfastness: laundering, crocking, light, atmospheric gases, perspiration, and chemicals  <i>Labs #7 ~ #11 (Cont.)</i>	Ch10 & Ch11	Labs #7~#11 Due on 04/24
15	04/29 T 05/01 R	Lecture #13 – Fabric Flammability  Fabric Analysis Project Presentation	Ch14	Fabric Analysis Due on 05/01
16	<b>05/08 R</b>	<b>8:00am – 10:00am FINAL EXAM (Exam #3: Ch10, Ch11, Ch12, Ch13, Ch14)</b> Readings (Ch10~Ch14) Due on 05/08		

The schedule and procedures in this course, as outlined in this syllabus, are subject to change in the event of extenuating circumstances and/or as deemed appropriate by the professor.