CUNY-NYC College of Technology
Department of Business, Business & Technology of Fashion

Course Outline: Advanced Textile Techniques (BUF 3246)

3 credits/4 hours (2 hours lecture/2 hours lab)

COURSE DESCRIPTION

An exploration of advanced techniques in analysis and fabrication of fabrics. Laboratory work concentrates on cloth construction, hand-printing techniques, machine sewing and stitching techniques, natural and synthetic dye processes and experimentation with sustainable fibers and fabrics.

COURSE CO/PREREQUISITE (S) Introduction to Textiles (BUF 2246)

RECOMMENDED TEXTBOOK AND MATERIALS

Shenton, Jan. *Woven Textile Design.* Laurence King, 2014: London. **ISBN-13:** 978-1780673370

Wisbrun, Laurie. *Mastering the Art of Fabric Printing and Design.* Chronicle Books, 2012: San Francisco. **ISBN-13:** 978-1452101156

Compliance with Federal Law: For information on the authors, titles, retail prices, ISBN numbers, and other details regarding the textbooks, please visit the college website

Materials: Fabric, thread and yarn skeins; ink and printing tools as needed for projects

LEARNING OUTCOMES: Course Specific

OUTCOME	ASSESSMENT
Identify the optimal techniques for creating apparel fabrics based on design motifs	Class discussions, lab work, and fabric samples
Gain proficiency in planning and fabrication of printed, woven and knitted apparel	Class discussions and peer reviews, lab work, and presentation of final portfolio
Understand the components that alter finished cloth, including yarn type/size, printing inks, and embellishment materials	Class discussion, lab work, and fabric samples
Understand the relationship between hand-made and mass-produced textiles, and how these processes compare	Class discussion, lab work, online assessments of industry trends, and portfolio
Interpret the current textile trends, techniques, and how textiles play a role in apparel design	Class discussions, lab work and final portfolio materials

LEARNING OUTCOMES: General Education

OUTCOME	ASSESSMENT
Employ scientific reasoning and logical thinking	Lab work and documentation

Derive meaning from experience as well as gather information from observation	Class discussions, lab work, and final project materials
Show curiosity and the desire to experiment with materials	Class discussion, lab work, and fabric samples
Gather, interpret, evaluate, and apply information discerningly from a variety of sources.	Lab work, library research, online textile assessments, and museum visits

TECHNOLOGY

All students will be responsible for arranging reliable access to internet and computer for online assignments including submissions, discussion boards, blogs, and related materials. Primary platforms used will be Blackboard and Open Lab; any online synchronous meetings will take place using Blackboard Collaborate or Zoom.

ACCOMMODATIONS STATEMENT

City Tech is committed to supporting the educational goals of enrolled students with disabilities in the areas of enrollment, academic advisement, tutoring, assistive technologies and testing accommodations. If you have or think you may have a disability, you may be eligible for reasonable accommodations or academic adjustments as provided under applicable federal, state and city laws. You may also request services for temporary conditions or medical issues under certain circumstances. If you have questions about your eligibility or would like to seek accommodation services or academic adjustments, please contact:

Center for Student Accessibility at 300 Jay Street room L-237
Telephone: (718) 260-5143 WEB: http://www.citytech.cuny.edu/accessibility/

Students who miss a scheduled presentation or exam due to illness or medically-related emergencies will be referred to the Center for Student Accessibility. The CSA will review any documentation requested and give the student a letter to share with the relevant instructor if accommodations need to be made.

ATRIUM LEARNING CENTER

The Atrium Learning Center at City Tech offers academic assistance to all students through the use of services including tutoring, workshops and access to computer-based programs. Both peer and faculty tutors are available for assistance. For further information, please visit:
https://www.citytech.cuny.edu/alc/

NYCCT ACADEMIC INTEGRITY POLICY

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion.

SafeAssign anti-plagiarism software may be administered for the submission of assignments; students will have the opportunity to review their reports prior to submission.

CREDIT HOUR ASSIGNMENT POLICY

Course work performed outside of the classroom (such as reading, studying, writing papers, doing projects or receiving tutoring) is critical to academic success. While the time requirements for individual students may vary somewhat, a general rule of thumb is that students should spend about **two hours outside the classroom for every hour required in it.** Assigned homework such as creating original fabric samples, researching methods, and becoming familiar with materials and lab equipment, is expected to take up to 6-8 hours weekly. Please plan accordingly.

STUDENT CONDUCT POLICY

Any conduct that interferes with the educational process is prohibited in classes at NYCCT. This includes any behaviors that are dangerous, disruptive, disrespectful or disorderly. Students must use commonly accepted standards of courtesy, cooperation, consideration and mutual respect at all times.

Please silence your cell phones When in class, please turn your cell phones off and put them out of sight. Talking on cell phones, checking or sending text messages, listening to music, and reading material not connected to this class is prohibited. Please do not wear headphones during class. Laptops are permissible for taking notes in the first row of the classroom. No video or audio recording permitted during lectures. If you need to check your cell phone for an emergency situation, please inform me before class.

Grading System: All grades will be based in proportion to the following scale:
A = 93 - 100 A- = 90 - 92 B+ = 87 - 89 B = 83 - 86 B- = 80 - 82 C+ = 77 - 79 C = 70 - 76 D = 60 - 69 F = 59 and below. If a final grade is not a whole number, any decimal greater than .5 will be rounded up (e.g. 82.51 becomes an 83). Each assignment includes a clear rubric. If the rubric for an assignment is not clear, discuss with professor during office hours or via email. Students need to submit assignments *on or before the due date.*

MIDTERM REPORTS

All students will be notified through their CUNY- NYC College of Technology e-mail accounts and/or posted on Blackboard about their progress in this course by the mid-semester point.
Mid-term grades are assessed as follows, per recommendation by the Office of the Provost: P-Passing, BL-Borderline, U-Unsatisfactory, SA-Stopped Attending

Grading System: All grades will be based in proportion to the following scale:
A = 93 - 100 A- = 90 - 92 B+ = 87 - 89 B = 83 - 86 B- = 80 - 82 C+ = 77 - 79 C = 70 - 76 D = 60 - 69 F = 59 and below. If a final grade is not a whole number, any decimal greater than .5 will be rounded up (e.g. 82.51 becomes an 83). Each assignment includes a clear rubric.

WU-Unofficial Withdrawal (attended at least once)
WF-Withdrew Failing
WN-Unofficial Withdrawl (never attended)

Grading and add/drop policies are in accordance with University policies.

FINAL GRADE FOR THE COURSE The Course grade is calculated as follows. Descriptions for each category are included in the following pages:

CATEGORY	DESCRIPTION	% FINAL GRADE
Participation	Class Discussions and Peer Reviews	(10%)
Module 1	Knitted Fabric samples	(15%)
Module 2	Woven Fabric samples	(15%)
Module 3	Printed Fabric samples	(15%)
Module 4	Dye Process samples	(15%)
Final Project	Choose one process to produce a finished garment or textile	(10%)
Final e-Portfolio	e-Portfolio on Open Lab showcasing best work, including final project	(10%)
Blogs	Process Summaries for all 4 Modules	(10%)

PARTICIPATION Active participation includes taking notes during lecture and participating in classroom discussions, peer critiques, and labs. Online participation includes participation in discussion boards or commenting on peer web sites/blogs. Please check Blackboard regularly for updates to assignments and postings. All changes to the schedule will be posted in the Announcements section; emails will also be sent for urgent items.

Although students are not graded on attendance, missed time impacts any portion of the final grade overtly allocated to participation and/or any grades awarded for activities that relate to presence in class (e.g. discussions, lectures, or labs). In-class activities including quizzes and tests that are completed during class time will result in a 0, unless the absence is excused. Missed class time includes not just absences but also late arrivals, early departures, and time outside the classroom taken by students during class meeting periods.

Students who are not present in class are responsible for turning in assignments *before* the start of class on the due date via Blackboard. Exceptions will only be made for medical or family emergencies provided on official letterhead, as approved and documented through the Center for Student Accessibility (see previous section).

Online participation: For any online portion of this course, attendance is documented by your participation online in discussion boards and participation during synchronous sessions using chat or audio. All due dates for online work, including time of day, are noted on the course schedule. All submitted assignments are time/date stamped through Blackboard.

LECTURES and LABS This course includes a lecture component as well as a lab component. Lectures and labs will take place during the in-person portion of the class. In some cases, students will be responsible for bringing materials to complete the lab, and will be notified ahead of time on the syllabus, in class, and through reminders announced on Blackboard. Labs are assessed and calculated as explained below. The weight of each Module is based on the amount of time involved in the lab. Open lab hours will vary each semester and per Module; please check Blackboard for updates.

LAB MODULES

Each Module includes lab work to produce samples in each category (knits, wovens, prints, dyes). Being present for demonstrations and lab work is an important aspect of learning these techniques, and as such, is included in your participation grade. The fabric samples completed during labs and outside of class comprises your Module grade.

All fabric samples produced will be graded on the following:

Originality	25 points
Craftsmanship	25 points
Employment of Technique	25 points
Application to Apparel	25 points

Module 1: Knitted Fabrics Students will learn the basics of machine knitted fabrics by using a manual circular knitting machine and a flat-bed knitting machine with digital interface.

Fabric Samples: Weft knits (jersey, purl, rib, etc.)
Peer Critique: Mood Board demonstrating use of knits in apparel

Module 2: Woven Fabrics Students will learn the basics of weaving on a manual loom with digital interface, including setting up the warp and hand-weaving samples from digital file.

Fabric Samples: Dobby Weaves
Peer Critique: Mood Board demonstrating use of wovens in apparel

Module 3: Printed Fabric Students will learn two types of printing in this Module: block printing and screen printing. They will carve and print individual blocks, as well as create a screen, based on original designs. These 2 projects include printing repeat patterns on cloth.

Fabric Samples: Block-printed cloth; screen-printed cloth
Peer Critique: Mood Board demonstrating use of prints in apparel

Module 4: Dye Processes Students will learn natural and synthetic dye processes including hand-painted and vat dyeing techniques, and resist-dyeing.

Fabric Samples: Natural dyes using vat-dyeing technique; resist-dyed natural dye sample; hand-painted synthetic dye sample
Peer Critique: Mood Board demonstrating use of dyes in apparel

BLOGS As students learn about each process, they will keep a real-time blog documenting their learning experience. Blogs should be written using appropriate industry terminology describing materials and techniques. Each Module should include one blog entry, therefore there should be 4 posts by the end of the semester; students will also respond to peer blogs. Each blog entry must include at least one image, and be time/date stamped before the end of the Module. This grade is calculated separately from online participation; all 4 blogs will count towards 10% of final course grade as indicated in preceding table.

Final Project: Choosing one or more of the processes explored in the course, students will create one finished piece of fabric. Techniques should be combined, such as using hand-dyed yarns for a woven sampler, or overdyeing printed fabric.

All lab samples are expected to be executed at least partly during class time. This allows for in-progress assessments and a better result for student output. Module samples should be turned in on time and complete. Partial work will be reflected in the grade for the assignment. Late work is only accepted on an individual basis upon the approval of the instructor. If you have questions or issues with the lab, or if you will be missing a lecture or lab, you are responsible for contacting the instructor during office hours, or via email 4-5 hours before the start of class for assistance. This includes online assignments, such as discussion board questions. Students need to submit assignments *on or before the due date.*

ONLINE PORTFOLIO Each student is responsible for creating a web-based portfolio showcasing their work. Completion of the e-Portfolio is 10% of your final grade. Students will have the option of using Open Lab to post their portfolio and/or create a web site to promote their work. Alternative web-based platforms will also be discussed at the beginning of each semester. *See next section for more on e-Portfolios.*

E-PORTFOLIOS/OPEN LAB:

We will be creating online portfolios for the work created in this course. CUNY-College of Technology asks all students to participate in building a program-long ePortfolio of the work that they complete while taking classes at the College. Through a process of *collect, select, reflect, and connect,* students learn to judge the quality of their own work, speak about their learning, and present evidence of their current knowledge and skills. College faculty will assist with this process by recommending that you store at least one significant piece of work from each course in your Blackboard content collection. For more information, see the "ePortfolios at CUNY-College Technology" organization in Blackboard.
For sample Open Lab portfolios, see: https://openlab.citytech.cuny.edu/portfolios/
Extra Credit assignments will be optional throughout the course. Example: a museum visit to analyze an object or exhibition in a written response. Guidelines will be given for each extra credit opportunity. These are worth up to 10 points towards the mid-term or final exams, or towards homework grades as noted.

COURSE SCHEDULE This course includes a combination of OERs, listed in the Course Reader, and textbooks. The Reader includes videos, readings, and other demonstrative tools to help with understanding and completing fabrication. Materials for Module 1 will be in included in the course reader. We will use two textbooks in this course: woven design (Shenton) for Module 2, and print design (Wisbrun) for Module 3, listed by author and Chapter. Module 4 materials will be in the course reader.

CLASS SCHEDULE and TOPIC	Lecture/Lab information	Read & Review
Week 1: Module 1 Knit structures	Lecture: History of Knitting Lab: Machine-made knits with the Addi Express	Course Reader Week 1
Week 2: Module 1 Knit fabrication	Lecture: Knitted/knotted structures Lab: Identifying knit/knot types & creating samples	Course Reader Week 2
Week 3: Module 1 Knit Fabrics in Apparel	Lecture: Knits in Apparel Lab: Create sample board with knitted fabrics & review in class	Course Reader Week 3
Week 4: Module 2 Weaving on the Dobby LW loom	Lecture: Woven Textiles in Apparel Lab: Warping the Little Weaver loom	Shelton: Ch. 1 Course Reader Week 4
Week 5: Module 2 Weaving on the Dobby LW loom	Lecture: Weaving history: loom types and basic weave structures Lab: Basic weaves (Tabby, Twill, Satin)	Shelton: Ch. 2 and 3 Course Reader Week 5
Week 6: Module 2 Weaving on the Dobby LW loom	Lecture: Color in Woven Design Lab: Using color to create pattern; Double-weave techniques	Shelton: Ch. 4 and 5 Course Reader Week 6

Week 7: Module 2 Weaving on the Dobby LW loom	Lecture: Complex weaves Lab: Dobby Weave Variations	Shelton: Ch. 6 and 7 Course Reader Week 7
CLASS SCHEDULE and TOPIC	Lecture/Lab information	Read & Review
Week 8: Module 3 Textile Printing techniques	Lecture: Hand-Printing techniques I Lab: Block printing project	Wisbrun: Ch. 1, 2 and 5 Course Reader Week 8
Week 9: Module 3 Textile Printing techniques	Lecture: Hand-Printing techniques II Lab: Screen Printing	Wisbrun: Ch. 3 Course Reader Week 9
Week 10: Module 3 Textile Printing techniques	Lecture: Resist-dyeing techniques Lab: Shibori/resist-dyeing	Wisbrun: Ch. 4 Course Reader Week 10
Week 11: Module 4 Sustainability in Fashion	Lecture: Sustainable Design Lab: Vat dyeing with natural dyes	Course Reader Week 11
Week 12: Module 4 Basic garment design	Lecture: Creating a garment Lab: Sewing a simple garment with printed fabrics from the course	Course Reader Week 12
Week 13: Final Project Marketing your textiles	Lecture: Marketing your work Lab: Begin final project in desired technique(s) from course	Wisbrun: Ch. 7 Course Reader Week 13
Week 14: Final Project Marketing your textiles	Peer presentations and review of WIP Lab: Continue working on final projects	Course Reader Week 14
Week 15: Final Project Marketing your textiles	Lecture: Creating a web-based platform for your textile collection Lab: Continue working on final projects	
Week 16: Final Review	Final materials due; Peer and Instructor Review	

Bibliography:

Fletcher, Kate and Lynda Grose. *Fashion & Sustainability: Design for Change.* Laurence King Publishing, 2012: London. ISBN-13: 978-1856697545

Gullingsrud, Annie. *Fashion Fibers: Designing for Sustainability.* Fairchild Books, 2017: London and New York. ISBN-13: 978-1501306648

Interweave Editors. *100 Knits: Interweave's Ultimate Pattern Collection.* Interweave Press, 2018: Blue Ash, OH. ISBN-13: 978-1632506474

Kight, Kim. *A Field Guide to Fabric Design.* C & T Publishing, 2011: Lafayette. ISBN-13: 978-1607053552

Meller, Susan and Joost Elfers. *Textile Designs: Two Hundred Years of European and American Patterns Organized by Motif, Color, Layout, and Period.* Harry N. Abrams, 2002: New York. ISBN-13: 978-0810925083