

**Course:** Future Fashion and Textiles  
**Professor:** Dr. Nazanin Munroe  
**Course/Section:** BUF 4246-OL40  
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**Summer 2024** CUNY/NYC College of Technology  
**Office Hours:** Online via email or Zoom by appointment  
**Asynchronous ONLINE** 3 Credits  
*Please allow 24 hours for email response*

### **COURSE DESCRIPTION**

An investigation of topics related to technological developments in the industry, specific to textiles and apparel. Topics such as conductive textiles and interactive garments are explored in conjunction with uses in the apparel industry. Research, discussion and lab-based experimentation culminate in a final project, paper and presentation.

**COURSE CO/PREREQUISITE (S)** Textile Technologies (BUF 3346) or by departmental permission  
*For Summer 2023, the pre-requisite is BUF 2246, Introduction to Textiles*

**NO REQUIRED TEXTBOOK** This summer class will work with Open Educational Resources (OERs). Check Brightspace for readings and assignments.

### **RECOMMENDED TEXTBOOK AND MATERIALS**

Genova, Aneta and Katherine Moriwaki. *Fashion and Technology*. Bloomsbury, 2016: London and New York. **ISBN-13:** 978-1501305085

Online Video tutorials will be a significant part of the lab portion of this course, e.g. Adafruit Tutorials <http://learn.adafruit.com>

Materials: Digital components, fabrics and mixed media as needed for projects. These will be listed with the assignment details.  
Materials cost: ~ \$50–\$100

### **LEARNING OUTCOMES: Course Specific**

OUTCOME	ASSESSMENT
Identify current trends in the apparel industry with regard to smart/interactive textiles, biosynthetic fiber development, and new garment forms	Class discussions, homework and final paper
Research and understand the role of technology in the contemporary textile and apparel industries	Class discussions, homework, lab work, and presentation of final project
Analyze challenges presented by non-traditional textile and garment-making techniques, and consider solutions or alternatives	Class discussion, online assessments of industry trends, lab work, sample production and projects
Understand the relationship between electronic components and textiles/apparel	Class discussion, lab work, and final paper/presentation
Interpret the current trends, techniques, and future direction of the industry, and create original response	Class discussions, lab work and final paper/presentation

**LEARNING OUTCOMES: General Education**

OUTCOME	ASSESSMENT
Employ scientific reasoning and logical thinking	Lab experiments and documentation
Derive meaning from experiential learning as well as gather information from observation	Class discussions, lab experiments, and final project materials
Show curiosity and the desire to experiment with software to alter the results of textiles/apparel	Class discussion, samples produced, and final project materials
Gather, interpret, evaluate, and apply information discerningly from a variety of sources.	Lab experiments, library research, homework assignments
Demonstrate intellectual honesty and personal responsibility	Online discussions, written demeanor, final paper & presentations
Gather, interpret, evaluate, and apply information discerningly from a variety of sources	Final paper & presentation
Demonstrate expanded cultural and global awareness and sensitivity	Class discussion, final paper & presentation

**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 **Brightspace**. Please go to the City Tech main page/Quick Links/Brightspace to find our course.

**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.

### **STUDENT CONDUCT POLICY**

Any conduct that interferes with the educational process is prohibited for in-person and online 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, including online communication, towards other students and the professor.

### **CREDIT HOUR ASSIGNMENT POLICY**

Course work performed outside of the classroom (such as reading, studying, writing papers, completing 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 readings, videos/podcasts, creating original fabric samples, researching methods, and becoming familiar with materials will take time. Please plan accordingly.

### **MIDTERM REPORTS**

All students will be notified through their CUNY- NYC College of Technology e-mail accounts and/or posted on Brightspace 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, N–Needs Improvement, 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 Withdrawal (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
<b>Online Participation</b>	Discussion Boards (2)	(15%)
<b>Module 1</b>	Fashion and Climate Change	(25%)
<b>Module 2</b>	Sustainable Alternatives	(25%)
<b>Module 3</b>	Smart Textiles & Technology in Fashion	(25%)
<b>Final e-Portfolio</b>	e-Portfolio on Open Lab showcasing the work form this course	(10%)

**ASSIGNMENTS** 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*.

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).

**PARTICIPATION** Please check Brightspace 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.

For the online portion of this course, attendance is documented by your participation online in discussion boards and assignments. All due dates for online work, including time of day, are noted on the course schedule. All submitted assignments are time/date stamped through Brightspace.

**COURSEWORK** This course includes a reading/research component as well as a lab component. As this course is asynchronous in Summer 2024, the readings are in place of lectures, and labs will be completed off campus. Students will be responsible for purchasing materials to complete the lab, and will be notified of required materials at the beginning of each module. Reminders are announced on Brightspace. Labs are assessed and calculated as explained below. The weight of each Module is based on the amount of time involved.

**OVERVIEW of LAB MODULES:** Each Module is worth 25% of the final course grade. Module 1 will focus on the relationship of fashion and climate change. Module 2 (Sustainable alternatives) and Module 3 (Smart/Techno Textiles) include lab work to produce samples; the course will culminate in the creation or addition of your work to an ePortfolio. Details follow.

**Module 1: Fashion and Climate Change** Starting with a podcast and discussion board post, students will learn about how fashion companies contribute to climate change and other environmental issues. **The DB is 10 % of your final grade.**

**Sustainable/Fair Trade companies** Next, students will research Fair Trade companies and create a presentation on a company of their choice from a list provided, shared asynchronously with the class. The

analysis will include pros and cons of global outsourcing, including environmental issues, as well as the economic viability of reorganizing apparel industry practices towards more ethical practices. **The presentation is worth 25% of your final grade.**

**Module 2: Sustainable Alternatives** Students will research companies creating sustainable fiber alternatives and environmentally-friendly processes, and create samples based on one of these processes. This can be experimenting with natural dyes and materials, or upcycling an existing garment. **The project is worth 20% of the course grade.** Add photos and a short narrative to the Discussion Board. **The DB is 5% of your final grade.**

**Module 3: Smart Textiles & Technology in Fashion** Students will research fashion designers and companies using technology to create interactive textiles and garments, and analyze passive, active, and very smart textiles. **The analysis is worth 10% of your grade.**

Next, students will create a sample of an e-textile based on one of these processes. **The project blog/vlog is worth 10% of the course grade and the vlog/blog is worth 5%.**

**ONLINE PORTFOLIO** Each student is responsible for creating a web-based portfolio showcasing their work. This can be added to your existing online portfolio. 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.* **The ePortfolio is worth 10% of the course grade.**

**E-PORTFOLIOS** We will be creating online portfolios for the work created in this course. If you already created one for other courses, you may add a separate section for this course.

For sample Open Lab portfolios, see: <https://openlab.citytech.cuny.edu/portfolios/>

If you wish to use a different platform, you are welcome to do so; here are some alternative options: [Behance](#) or [Fabrik](#) or [Crevado](#) or [Adobe Portfolio](#) (if you have Adobe ID—free through City Tech).

**COURSE SCHEDULE\*** Summer Session 1, 2024

*\*Course schedule is subject to change at the discretion of the instructor; changes will be posted in Brightspace*

Module	Topic	Assigned Reading & Homework
<b>Module 1:</b> Fashion, Sustainability and Climate Change	Introduction to Global practices in Fashion and how the industry affects climate change	<b>Discussion Board (DB)</b> Listen to this podcast and research the topic: <a href="#">“How the Fashion Industry is Responding to Climate Change”</a> (~35 min.) <b>Post on DB + 2 peer replies</b> <b>DUE: 6/2/24 by end of day</b>
<b>Module 1:</b> Fashion, Sustainability and Climate Change	Review article, choose company and create presentation	<b>READ/WATCH:</b> NPR Planet Money <a href="#">Economics of T-shirts</a> and <b>REVIEW</b> <a href="#">The Good Trade</a> <b>Presentation:</b> Choose one company and create a recorded presentation on their sustainable business model <b>Submit in Brightspace</b> <b>DUE: 6/7/24 by end of day</b>

<b>Module 2:</b> Sustainable alternatives in Fashion	Research & Lab: review the companies using sustainable materials/processes and work on a project	<b>HW:</b> Create a fabric/garment sample using a sustainable method or upcycling a garment <b>Submit Project photo in Brightspace</b> <b>Post on DB + 2 peer replies</b> <b>DUE: 6/14/24 by end of day</b>
<b>Module 3:</b> Smart Textiles	Learn about new technologies used to create interactive textiles	<b>REVIEW:</b> Introduction to Smart Textiles (Kettley) <b>HW:</b> Analyzing types of e-textiles (passive, active, smart) using examples from Mod 3 companies <b>Submit in Brightspace</b> <b>DUE: 6/21/24 by end of day</b>
<b>Module 3:</b> Smart Textiles and Future Fashion Lab project	Lecture: Introduction to Smart textiles Lab: Creating a circuit for a Smart textile	<b>HW:</b> Complete your e-textile project and submit a short video and commentary <b>PROJECT and ePortfolio</b> <b>DUE: 6/26/24 by end of day</b>

### Further Reading List

Banzo, Massimo and Michael Shiloh. *Getting started with Arduino*. Maker Media, 2014: Sebastopol.

Barela, Mike. *Getting Started with Adafruit Circuit Playground Express (1<sup>st</sup> edition)*. Maker Media, 2018: San Francisco.

Brownie, Barbara. *Spacewear: Weightlessness and the Final Frontier of Fashion*. Bloomsbury Visual Arts, 2019: London and New York. **ISBN-13:** 978-1350000322

Clarke, Sarah E. Braddock and Jane Harris. *Digital Visions for Fashion and Textiles: Made in Code*. Thames & Hudson, 2012: New York. **ISBN-13:** 978-0500516447

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

Hartman, Kate. *Make: Wearable Electronics: Design, Prototype and Make your own interactive Garments*. Make Community, LLC, 2014. **ISBN-13:** 978-1449336516

Jiminez, Guillermo C. and Elizabeth Pulos. *Good Corporation, Bad Corporation: Corporate Social Responsibility in the Global Economy*. Open SUNY: 2016. ISBN 13: 9781942341253

Pailes-Friedman, Rebecca. *Smart Textiles for Designers: Inventing the Future of Fabrics*. Laurence King, 2016: London. **ISBN-13:** 978-1780677323.

Torvalds, Mark. *Arduino: A Step-by-Step Guide to Master Arduino Hardware and Software*. CreateSpace Independent Publishing Platform. **ISBN-13:** 978-1976097713