

SUSTAINABILITY AND FASHION TECHNOLOGY – AD423

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| Instructor: | e-mail: |
| | Term: |
| Voice mail: | Total class hours: |
| Office hours: | Class meets: |

Course description: This class will look at the ways that sustainability and technology are merging in fashion, with visiting guest speakers who are experts in upcycling, e-textiles, and sustainable apparel systems. Learn about innovations in fashion tech that make the planet greener, and design a garment that takes apparel to the next level using e-textiles.

Course objectives: Upon completion of the class, students will:

- The meaning of environmentally- and socially-aware design.
- All steps in producing an environmentally and socially acceptable product.
- Current and potential employment in the field of green design and the tasks in those jobs.
- Steps in creating an innovative green apparel or accessory product.

Class format: Class time is divided between demo and supervised workshop time. Each class ~1.3 hours lecture, 1.7 hours lab.

Recommended text: *A Practical Guide to Sustainable Fashion*, by Alison Gwilt. Online readings will be assigned for weekly research.

Required supplemental materials: Laptop or tablet for taking notes and in-class research.

Standards of conduct: Complete and on-time attendance is mandatory.

- **No student can miss three or more classes and expect to pass this class.**
- Attendance is at the beginning of each class period. If you are late, you will lose half the attendance points for the day. If you arrive late, it is your responsibility to make sure you have been counted present. If you arrive more than 15 minutes after the beginning of a part of the class period, you will be counted absent for that part of the period.
- If you are absent, you lose the attendance points for that day. If you know ahead of time that you will not be in class, make arrangement with the instructor the night *before* class (by 10 p.m. and by telephone).
- It is the student's responsibility to keep track of assignments and turn them in on time should the students miss the class or arrive late.
- Professionalism means: Turn off your cell phone. Attend the full class. Focus and follow-through during classroom work. Have respect and work well with classmates. Use the same behavior in the classroom as you would on the job in the apparel industry.
- Late work will result in a one letter grade deduction.

Labeling Policy: All student work must be turned in with the following information: Name, Course Name/Number, Instructor, Term/Date, Project/Assignment, Contact Info (phone or e-mail). Work may not be accepted for full credit without the required information. PFI cannot guarantee the return of student work that is not labeled with the required information.

Incomplete: A student who, due to medical or other exceptional causes, cannot complete the required class work must document his/her situation and submit a written request for an incomplete grade to be entered. The instructor, the academic advisor and director must approve the grade and assign a time line for the work to be completed. Incompletes must be requested and approved no later than the end of the quarter for which the incomplete is requested. To remove an incomplete, a student must complete the required course work before the next quarter commences. If a student does not comply within the time line or does not complete the work, an “F” grade, or the grade calculated by the instructor on the incomplete form, will be entered to replace the incomplete. To initiate a request for an incomplete grade, the student must fill out an incomplete form and submit it to his/her instructor. The instructor will obtain the required signatures and submit the completed form with final grades.

Withdrawal: The student who withdraws from a course or from the program during the first six weeks of the quarter will be assigned a “W” code for each course. The “W” code is not used in computation of the student’s grade point average; however, “W” credits are counted toward total credits attempted. The student who withdraws from a course or from the program after the ninth week of the quarter will be assigned a “WF” code for each course. The “WF” code is the equivalent of a grade of “F” and is used in computing the student’s grade point average. Students wishing to withdraw from PFI must file an official status change form with the Academic Advisor. Last day to withdraw from the class is 48 hours before class starts.

Lab Policies: Leave food and drink outside the classroom. Disciplinary action will be taken toward any student found using the equipment in an inappropriate manner. Disruptive, disrespectful, rude behavior is not tolerated.

Plagiarism: Presenting the writings, images or paraphrased ideas of another as one’s own, is strictly prohibited. Properly documented excerpts from other’s works, when they are limited to an appropriate amount of the total length of a student’s paper, are permissible when used to support a researched argument.

Attendance Policy: Students who are absent from all scheduled classes over a 14-day period (2 weeks) are subject to automatic attendance suspension—from PFI, not just from this course. This means the student is administratively withdrawn from all courses and cannot attend classes or continue in the current quarter unless he/she successfully appeals for reinstatement. Students who anticipate violating the attendance policy should contact the academic advisor immediately to discuss options such as withdrawing from PFI or navigating the appeals process.

Picking up Work: Please pick up your work no later than the first Friday of the following quarter. If you cannot retrieve your work by this date please make arrangements with me. All work not picked up by this date will be recycled.

Students with Disabilities: It is PFI policy not to discriminate against qualified students with a documented disability in its educational programs, activities or services. If you have a disability-related need for adjustments contact the academic advisor.

Evaluation:

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| Attendance/Professionalism | 10% |
| Week 1 Quiz | 5% |
| Week 2 Report | 10% |
| Week 2 Reading Response | 5% |
| Week 3 Report | 10% |
| Week 3 Reading Response | 5% |
| Questions for Week 3 Speaker | 5% |
| Week 4 Report | 10% |
| Week 4 Reading Response | 5% |
| Week 5 Design Brief and Sketch | 10% |
| Week 6 Quiz | 5% |
| Final Project Presentation | 20% |
| TOTAL | 100 % |

Grade Scale

| Letter | Number | Rating |
|--------|--------|--------------|
| A | 95-100 | Excellent |
| A- | 90-94 | |
| B+ | 87-89 | Good |
| B | 83-86 | |
| B- | 80-82 | |
| C+ | 77-79 | Satisfactory |
| C | 73-76 | Fair |
| C- | 70-72 | |
| D+ | 67-69 | Marginal |
| D | 62-66 | |
| F | <62 | Failure |

COURSE CALENDAR. Each class: LECTURE (1.3 hrs) & LAB (1.7 hrs)
This syllabus is subject to change at the instructor's discretion.

| WEEK/DATE | TOPIC | ACTIVITY | ASSIGNMENTS |
|-----------|---|--|--|
| 1/ | How bad is it? The global impact of the apparel industry | Bring laptop or notebook to take notes in every class. LECTURE: Overview of Zero Waste/Pre-Consumer Waste, Post-Consumer Waste/Upcycling, Circular Design, Natural vs. Synthetic Fibers and Dyes, Laundering. 3 Rs: Reuse, Renew, Recycle. Triple bottom line: PPP, People, Planet, Profit. IN CLASS RESEARCH: The True Cost documentary clip, discussion and quiz on fast fashion/biotech cotton/pollution. With a partner, research assigned textile fiber companies who are making a difference: Evernu, Modern Meadow, Bolt Threads, Teijin, NW Fibershed Waste/Upcycling, Circular Design | Prepare class presentation on Google Slides. Online reading assignment |
| 2/ | Fashion Technology Innovators | PRESENTATIONS: Class presentations and discussion of reading assignment LECTURE: Circular Design, Supply Chain hacks, Loomia blockchain technology. Take Back Programs: H+M, Zara, Nike, adidas https://www.youtube.com/watch?v=elU32XNj8PM IN CLASS RESEARCH: Research assigned apparel brands who use technology in new ways: Renewal Workshop, Eileen Fisher Renew, Reformation, Dyne, Wearable X. | Prepare report on Google Slides. Online reading assignment. |
| 3/ | Zero Waste/Pre- | PRESENTATIONS: Reports on apparel brands and discussion of reading | Homework: Research and prepare a presentation on Google Slides about a sustainable designer of your choice |

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| | and Post-Consumer Waste/Upcycling | <p>LECTURE: Guest speaker: Rhonda P. Hill, EdgeExpo magazine</p> <p>IN CLASS RESEARCH: Discussion and written questions for speaker.</p> | that we haven't covered yet. Online reading assignment. |
| 4 | Smart Textiles | <p>PRESENTATIONS: Class presentations on sustainable designers and discussion of reading</p> <p>LECTURE: Guest speaker: Darcy Neal, e-textiles, NFC, RFID, Arduinos and CPUs Levi's, Ying Gao, Behnaz Farahi, Hussein Chalayan</p> <p>IN CLASS RESEARCH: Experiment with e-textiles and write a design brief for their use in a garment.</p> | Homework: Based on your design brief, sketch a concept for a sustainable garment. Consider: Why is it needed? How will it improve customer experience and/or be better for the planet? |
| 5/ | Transparency | <p>PRESENTATIONS: Share your design brief and concept sketch. Be inspired by class feedback for how to evolve your idea</p> <p>LECTURE: Tracking environmental footprint. Honest by, Higg Index, Sustainable Apparel Coalition. Panjiva.com/manufacturers Sustainabledevelopment.un.org Harnessing metadata in databases, EP&L reports: Kering</p> <p>IN CLASS: Prepare Final Presentations</p> | Homework: Recreate final project, 2.0 version, with new sketch of your evolved idea. |
| 6/ | Final Projects and Quiz | <p>LECTURE: Final quiz</p> <p>PRESENTATIONS: Bring your Week 4 sketches and notes, along with the new sketch of your final project. Explain its sustainable pros and cons to the class, and how you resolved some of these design challenges.</p> | |