STUFF 101: How We Make It, Buy It, Use It, and Toss It

ARTSCI 1138.xx

AU 20xx | First-Year Seminar Series

Day, Time | Location

Instructor

Annie Abell, Assistant Professor of Practice

Department of Mechanical & Aerospace Engineering

abell.9@osu.edu | E340 Scott Lab | office: 614-292-9703

Office Hours by appointment- use the Carmen Scheduler tool to set up a meeting

Course Description

In this course, we will be examining STUFF: products, goods, and manufactured items that we buy, use, and toss out every day. How do we manufacture it? How do we consume it? How do we throw it out? And where does it go when we throw it out? What can we recycle? And is recycling even worth it?

We will also look at stuff in our own campus community. OSU has a goal to become a Zero-Waste campus by the year 2025; we will use this as a lens to examine our own habits of consuming and tossing out stuff. Is a goal of zero-waste possible? What are the boundaries of a zero-waste system? What might it take for us to become a zero-waste campus? How might our consumption of stuff have to change?

Course topics will include: Manufacturing & engineering of stuff; The life cycles of stuff; Consumption & consumerism; The waste stream (including landfills and recycling); Communities & the role they play in our use of stuff.

We will approach these topics from the perspective of science and engineering, though a background in these fields is not necessary for successful participation in this course. Students from all majors are welcomed and a diversity of viewpoints will bring value and depth to our discussions.

Course Objectives

The objectives of this course are to...

- understand the role that our community plays in the creation and consumption of stuff
- explore the ways in which our daily choices impact the manufacture and consumption of stuff
- understand how stuff is manufactured and investigate the life cycle of stuff
- examine the global impacts of our (over)consumption of stuff
- examine what happens to stuff once we toss it out, and understand the limits of our current recycling and waste disposal systems

Course Format

The course will involve frequent readings, discussions, guest speakers, projects, lectures, and more. There will be weekly reading assignments, which will be the basis for our class discussions. Active participation is expected from everyone and both attendance and participation will be a critical part of your success in this course. The format of this course will allow us to try new things and make the most of our educational experience. However, this also may mean that we may have to deviate from the planned schedule for the good of the class... but you will be given advance, written notice should the schedule change for any reason. Your constructive feedback on the style and progress of the course is welcome and appreciated.

Required Text

The Story of Stuff, 2010 by Annie Leonard, published by Free Press, ISBN # 978-1451610291. Used, electronic, or library copies are suggested, given the nature of our course. The Columbus Metropolitan Library and the OhioLink Library Network (via the OSU library) each have numerous copies available. This text is also available via online booksellers and local brick-and-mortar book shops.

Course Grading

Grading Scheme

This course will be evaluated on the Satisfactory/Unsatisfactory scheme.

Grade Breakdown

Projects: 30%Journal: 20%

• Reading Reflections: 10%

Discussions: 20%Participation: 10%Attendance: 10%

Participation

Active participation is expected of each student. There will be class discussions on most days, and with a small class this means the course will only be as interesting, engaging, and valuable as you make them. Your participation grade will be based on your contributions to class discussions, activities, and projects. A student who achieves an excellent participation grade would engage in the following behaviors:

- Proactively contributing to discussions and other activities; offering frequent insight and analysis
- Demonstrating preparation by knowing and analyzing assigned reading
- Relating discussion topics other course material or experiences
- Questioning others in a constructive way; responding thoughtfully to questions from others
- Contributing cooperatively to argument building and debates
- Proactively soliciting feedback from the instructor when something is unclear

Attendance

As an adult, you alone are responsible for your attendance in class. If you must miss class, give advance notice via email to Prof. Abell. Though giving notice does not automatically excuse your absence, it is the proactive and responsible thing to do. If you are ill, stay home to take care of yourself and to avoid spreading illness to others. To have your absence due to illness excused, you must provide an authentic note from a doctor or health center party upon your return to class. Make up work may not always be available if you miss a class, but it is your responsibility to seek out information on possible make up work and on any activities from the missed class.

Assignments & Projects

- Readings, Reflections, and Discussions: We will have frequent readings from our course text and other articles. After each reading you submit a written reflection and we will have group discussions in class.
- **Journal:** You will create a journal to track the stuff in your life over the semester, log your thoughts about it, and reflect on your role as a consumer and throw-er-out-er of stuff
- Research Project: Over the semester you will investigate the life cycle of a chosen product
- **Community Project:** Investigate how we consume stuff on campus. What are the attitudes about consumption of stuff? What do people know? What do people do?
- **Final Project:** Investigate what it might take for us to achieve a zero-waste campus, and create a guide for the campus community to get involved in achieving this goal.

Carmen

Carmen will be used as the main source of course communication and course materials, as well as the record of class grades. Reading assignments *not* from the required text will be available via Carmen. All assignments and project deliverables will be submitted on Carmen; no paper copies will be accepted in class unless expressly specified. All assignments submitted via Carmen may be subject to review by Turnitin, Ohio State University's originality checking software.

It is your responsibility to make sure you have your Carmen notification preferences set to receive timely notifications of course announcements, messages, and other information.

Course Communication Expectations

All course communication, reminders, and updates will be sent to your OSU email, so you are expected to check this email account regularly in advance of class. A good-faith effort will be made to give course updates with at least a two days of lead time before class, but there may be occasions when information must be sent out relatively last minute.

Carmen messages are the best way to contact Prof. Abell with questions about class. Please allow at least 24 hours for a response, and note that emails sent over the weekend may be addressed at the start of the workweek.

Mental Health Statement

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 4th Floor of the PAES Building. 24 hour emergency help is also available through the National 24/7 Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org

Disability Accommodations Statement

Any student who feels they may need an accommodation based on the impact of a disability (including mental health and chronic or temporary medical conditions) should contact OSU Office of Student Life Disability Services for assistance in verifying the need for accommodations and for developing accommodation strategies. Students who have been certified by OSU Student Life Disability Services will be appropriately accommodated, and should inform the instructor of their needs and/or have any necessary forms signed by the instructor as soon as possible. The Office of Student Life Disability Services is located in 098 Baker Hall, 113 W. 12th Avenue; telephone 614-292-3307, TDD 292-0901; slds@osu.edu; slds.osu.edu.

Student Conduct Statement

Students are expected to conduct themselves in a professional and civil manner. The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at http://titleix.osu.edu or by contacting the Ohio State Title IX

Academic Integrity Statement

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct https://studentlife.osu.edu/csc/.

Special Note: Turnitin, an online originality-checking tool approved by OSU, may be used on any or all student assignments submitted in this course. Turnitin compares submitted assignments with other submitted assignments (from this semester or previous semester), online journals, articles, and books, among other sources.

Proposed Schedule

Week 1: Intro

Course Intro

Pre-Quiz

Movie: The Story of Stuff

Introduce Journal

Introduce weekly readings & reflections

Week 2: Manufacturing Stuff

Lecture: Manufacturing Discussion over reading Weekly reflection due

Week 3: Life Cycles of Stuff

Lecture: Product Life Cycles
Discussion over reading
Weekly reflection due
Introduce Research Project

Week 4: Stuff on Campus

Guest Speaker from OSU Sustainability/Zero-Waste

Discussion over reading/guest speaker Weekly reflection due

Week 5: Stuff on Campus

Community Project: Brainstorming for campus survey

Discussion over reading Weekly reflection due

Check in on Research Project

Week 6: Global Perspectives on Stuff

Lecture/Guest Speaker: Attitudes from around the globe

Discussion over reading

Weekly reflection due

Weekly relicement doc

Check in on Community Project

Week 7: Field Trip?

Recycling center, amazon distribution center, warehouse, or landfill

Week 8: Packaging Stuff

Lecture: packaging design & innovation Discussion over reading

Weekly reflection due

Week 9: Tossing Stuff Out

Lecture: How Recycling works (or doesn't)

Discussion over reading Weekly reflection due

Check in on research project

Week 10: Guest Speaker or field trip?

Speaker from Rumpke? Trip to Rumpke? Or oncampus field trip: dining services (to-go food production facility?)

Week 11: Research Project Presentations

Teams present the results of their research projects

Week 12: Reflecting on Stuff

Discussion over reading Weekly reflection due Discussion on journals Intro final project

Week 13: Final Project

In-Class work sessions Discussion over reading Weekly reflection due

Week 14: Final Project

In-Class work sessions Discussion over reading Weekly reflection due

Week 15: Presentation of Final Project

Presentation with invited guests

Biographical Statement

I am an Assistant Professor of Practice at The Ohio State University in the Department of Mechanical & Aerospace Engineering. I received my BS in Mechanical Engineering from Valparaiso University and an MFA in Design Research & Development with a focus on Product Design from The Ohio State University. The engineering degree was driven by my life-long fascination with how stuff is made, the design degree enlightened me as to how and why people use stuff, and both degrees have fueled me to continually question what lies ahead for the future of stuff.

Currently, I teach project-based product design courses to senior-level and graduate engineering students, including the Mechanical Engineering Product Design Capstone. I also teach an interdisciplinary product development course for students of all majors who are enrolled in the Entrepreneurship & Innovation minor. Previous to my position with Mechanical & Aerospace Engineering, I was a lecturer in the Department of Design and a Senior Lecturer in the First-Year Engineering Program.