

NUTR 0344: Food Industry's Role in Food System Sustainability

Fall 2021

- Class Meetings:** *Wednesdays: 5:00 - 7:30 pm Eastern Standard Time
Room 221, Medical Education Building, 145 Harrison Ave., Boston, MA
(Located across the street from the Jaharis Center)*
- Instructor:** Robert Guillemin | robert.guillemin@tufts.edu | EPA Region 1, 5 Post Office Sq.,
Boston, MA
- Office Hours:** Tuesdays 4:30 - 5:30 pm and Fridays 4:30 - 5:30 pm on Zoom (by appointment)
- Semester Hour Units:** 3 SHUs
- Prerequisites:** Graduate standing or instructor approval.
- Course Description:** Food businesses (the companies that process, manufacture, distribute, serve, and sell food) transform the very nature of what we eat and establish the economic, social and environmental terms that shape much of the food system. This course explores the challenges and opportunities to feed a growing population in a manner that is reliable, equitable, healthy, and sustainable. Students will learn about industry-led initiatives that attempt to balance the drive for profits with social and environmental goals. By viewing sustainability from a food business perspective, the course exposes students to the terms, concepts, and strategies employed by business leaders who seek to promote sustainability throughout their supply chain and for all of their stakeholders.
- Course Goals:** The overarching goal for this course is to learn why and how food businesses promote sustainability within a hyper-competitive and volatile marketplace and what can be done to enhance their role in creating a more sustainable, healthy, and just food system. Students will:
1. Use a historical and business perspective to understand how food businesses promote sustainability.
 2. Review the terms, concepts, and strategies used by corporate sustainability managers.
 3. Survey a variety of sustainability efforts undertaken by food businesses, from small enterprises and start-ups to multinational corporations.
 4. Evaluate the strengths and weaknesses of corporate sustainability programs and propose opportunities for improvement.
- Course Materials:** Required readings are available online through the course site on [Canvas](#), the Tufts University course management system. You are required to purchase **The Secret Life of Groceries** (2020) by Benjamin Lorr. This personal account of the food system is packed with stories and insights that are as instructive as they are captivating.

Academic Conduct

The Tufts University official policy holds that academic integrity, including avoiding plagiarism, is critically important. Each student is responsible for being familiar with the standards and policies outlined in the Friedman School's Policies and Procedures Handbook: [Friedman School Documents & Forms](#). It is the responsibility of the student to be aware of, and comply with, these policies and standards. In accordance with Tufts University's policy on academic misconduct, violations of standards of academic conduct will be sanctioned by penalties ranging from grade reduction or failure on an assignment; grade reduction or failure of a course; up to dismissal from the school, depending on the nature and context of any infraction. Visit [Academic Integrity Resources](#) for more information.

We take proper academic conduct seriously, as it is unfair and unethical when students don't submit their own work. The policy followed here is straightforward: any proven plagiarism or cheating will result in a failing grade for the assignment and the entire course, and all violations will be reported to the Dean for Academic Affairs.

Teaching-Learning Philosophy, and What That Means for You

The educational goal of the course is to actively engage with the material by sharing your thoughts, questioning assumptions, and probing the material to extract the lessons that are most meaningful for your academic journey. The course also features a large number of online lectures that will be discussed in class. Reading or watching the assigned materials before each class will be important for you to be able to fully participate and get the most out of our time together.

As we go through the semester, your suggestions on how we can best support your learning or improve the classroom environment is encouraged and appreciated.

Assessment and Grading

Your grade in this class will be determined by a series of exploratory research exercises, a classroom presentation, a final project, and classroom engagement and professionalism. Points will be awarded for each assignment, and an overall course score will be calculated from the weights given below. Grading for the course will be based on the distribution below:

Weekly Quiz (1.5% for 12 weeks)	18%
Exploratory Exercises	37%
1) Sustainable Brewery Search (3%)	
2) Violation Tracker (6%)	
3) Management Maturity Matrix (6%)	
4) Trade Association Review (6%)	
5) Sustainability Labeling Review (6%)	
6) CSR Report Review (10%)	
Corporate Change Maker (CCM) Presentation	15%
Presentation (10%)	
One Pager (5%)	
Final Project: Interview, Article, or Academic Paper	15%
Engagement and Professionalism	15%

Weekly Quiz: 18% of your grade will be based on a series of 12 weekly quizzes, each worth 1.5% of the final grade. The quiz will refer to the online Canvas lectures and reading material. The quiz will feature short answer, multiple-choice, fill-in-the-blank, and true/false questions. The specific due dates are listed in the “at a glance” course outline below.

Exploratory Exercises: 37% of your grade will be based on six short research and writing exercises that explore food business activities. 1) The Sustainable Brewery Search exercise is a quick sustainability review of breweries in Massachusetts. 2) The Violation Tracker exercise uses an online database of regulatory violations to understand how food businesses break laws. 3) The Management Maturity Matrix provides a comprehensive view of how businesses develop sustainable business practices, policies, and governance. 4) The Trade Association Review studies the sustainability role played by trade associations. 5) The Sustainability Labeling Review explores the nature of certification and product labeling. 6) CSR Report reviews the characteristics and quality of a company’s sustainability report. Each assignment is explained in greater detail in Canvas. The specific due dates are listed in the “at a glance” course outline below.

Sustainability Innovation Presentation (SIP): 15% of your grade will be based on your preparing and presenting a 5-7 minute presentation on a sustainability innovation for one of the six food business sectors. This will include presentations on either an established food company that is adopting new sustainability practices or a startup food company that seeks to disrupt the food system with new business strategies. The presentation will be followed by a brief Q&A session. 10% of the semester grade will be based on the presentation itself, and an additional 5% will be based on a one-page summary to be distributed to your classmates. Each student will sign-up for an available slot for a food sector of their choice. Presentations will feature efforts by existing food businesses and start-up companies. Additional details will be discussed on the first day of class and made available on Canvas.

Final Project: 15%: Students will choose from one of three final assignments based on their personal interests. These include 1) An interview with a corporate sustainability executive or leader within the food industry, 2) An article submitted to Food Tank, Food Tech Connect or another site that features stories on food and sustainability, 3) A critical review of a food business or program that seeks to promote sustainability. This assignment will be due at the end of the semester and the last class will schedule time for students to discuss their findings.

Engagement and Professionalism: 15% of your grade will be based on your engagement in-class discussion and participation in the Canvas Discussion forum. This includes the use of appropriate terminology when discussing the material (talk the talk!); listening actively; arriving on time and being prepared for class. In addition, a Weekly Prompt asks questions about readings and online lectures. Canvas Discussion forum. Student responses in the Canvas Discussion forum will be used to guide and deepen in-class discussions. And, for the first class, students will be asked to introduce themselves. This introduction and the online responses will not be graded individually but will count towards the overall grade for engagement and professionalism.

Grading Range

Your course score will then be mapped into a letter grade on the basis of “natural breaks” in the distribution of class grades. Please note that these breaks may be used to raise, but never lower, grades from a standard grade distribution (e.g., 90% will always be at least an A-).

Instructions for Submission of Assignments

All assignments and quizzes are due on Canvas at **11:59 pm on the Monday** before each class, unless otherwise noted in the schedule below.

Penalties for late or incomplete assignments: No late assignments will be accepted and a zero grade will be recorded for missing work. If you think you may have difficulty completing an assignment on time, please ask us for an extension as early as possible. No extensions will be granted fewer than 24 hours before an assignment is due other than in an emergency; in case of an emergency, please notify the instructor as soon as possible.

Grading Questions: If you believe that an assignment or exam question was graded incorrectly, you are welcome to raise the issue but please wait at least one day before deciding to discuss grades.

Accommodation of Disabilities: Tufts University is committed to providing equal access and support to all students through the provision of reasonable accommodations so that each student may access their curricula and achieve their personal and academic potential. If you have a disability that requires reasonable accommodations please contact the Friedman School Assistant Dean of Student Affairs at 617-636-6719 to make arrangements for the determination of appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect of their provision.

Diversity Statement: We believe that the diversity of student experiences and perspectives is essential to the deepening of knowledge in this course. We consider it part of our responsibility as instructors to address the learning needs of all of the students in this course. We will present materials that are respectful of diversity: race, color, ethnicity, gender, age, disability, religious beliefs, political preference, sexual orientation, gender identity, socioeconomic status, citizenship, language, or national origin among other personal characteristics.

Course Topics and Assignment Schedule at a Glance: *Provide in this section a summarized list (quick view) of your course's class dates, course topics, lecturers, and assignments for each class (as appropriate). Include at the end of this section the disclaimer: This schedule is subject to modification at the instructor's discretion.*

Week	DATE	COURSE TOPIC	ASSIGNMENTS DUE
1	Sept. 8	Introduction and Overview	<ul style="list-style-type: none"> ● 1) Sustainable Brewery Search ● Student Introduction in the Discussion forum (ungraded)
2	Sept. 15	Sustainable Business Behavior (Part 1: Bad Companies)	<ul style="list-style-type: none"> ● 2) Violation Tracker Exercise ● Weekly Quiz and Prompt
3	Sept. 22	Sustainable Business Behavior (Part 2: Good Companies)	<ul style="list-style-type: none"> ● 3) Management Maturity Matrix ● Weekly Quiz and Prompt
4	Sept. 29	Food Trade Associations	<ul style="list-style-type: none"> ● 4) Trade Association Review ● Weekly Quiz and Prompt
5	Oct. 6	Sustainable Supply Chain Management	<ul style="list-style-type: none"> ● 5) Sustainability Labeling Review ● Weekly Quiz and Prompt
6	Oct. 13	Assessing Sustainable Business Behavior	<ul style="list-style-type: none"> ● 6) CSR Report Review ● Weekly Quiz and Prompt
7	Oct. 20	Food Distribution	<ul style="list-style-type: none"> ● SIP Presentation (Group 1) ● Weekly Quiz and Prompt
8	Oct. 27	Food Manufacturing	<ul style="list-style-type: none"> ● SIP Presentation (Group 2) ● Weekly Quiz and Prompt
9	Nov. 3	Food Packaging	<ul style="list-style-type: none"> ● SIP Presentation (Group 3) ● Weekly Quiz and Prompt
10	Nov. 10	Food Retail	<ul style="list-style-type: none"> ● SIP Presentation (Group 4) ● Weekly Quiz and Prompt ● Confirm Final Project
11	Nov. 17	Restaurants	<ul style="list-style-type: none"> ● SIP Presentation (Group 5) ● Weekly Quiz and Prompt
	Nov. 24	UNIVERSITY HOLIDAY - NO CLASSES	
12	Dec. 1	Institutional Food Service Providers	<ul style="list-style-type: none"> ● SIP Presentation (Group 6) ● Weekly Quiz and Prompt
13	Dec. 8	Class Review and Conclusion	<ul style="list-style-type: none"> ● Final Project: Due December 14. Note: Confirm by Nov. 10. ● Weekly Quiz and Prompt

This schedule is subject to modification at the instructor's discretion

Detailed Course Schedule

Week 1: Introduction and Overview

Learning Objectives

- Explain sustainability from a food business perspective.
- Review the relevance of systems thinking and wicked problems.

Canvas Lectures

- Defining Sustainable Food Systems (SFS) - Guillemín (8:12)
- Why the Middle of the Food System Matters - Guillemín (7:40)
- Wicked Problems and the Food System - Guillemín (4:53)
- System Thinking Approach - Guillemín (13:02)

Required Reading and Viewing

- Benjamin Lorr (2020). [The Secret Life of Groceries: The Dark Miracle of the American Supermarket - A Secular Revelation](#) (p.8-12). Note: Once it enters the realm of business, food becomes a commodity whose primary purpose is to reap profits. Lorr's recent book describes this transformation, launching the interplay between financial success and sustainability.
- Video: [What is Conscious Capitalism?](#) Financial Times, 2016 (5:04).
- Jeroen Kraaijenbrink. [What The 3Ps Of The Triple Bottom Line Really Mean](#). Forbes, Dec 10, 2019 (p. 1-6)

Assignment Due

- Exploratory Exercise #1: Sustainable Brewery Search
- Student Introduction in Canvas Discussion Forum (ungraded)

Week 2: Sustainable Business Behavior (Part 1: Bad Companies)

Learning Objectives

- Describe a model for assessing corporate commitment for sustainability.
- Describe conditions and practices that support unethical corporate behavior.
- Explore the relationship between regulatory compliance and corporate social responsibility.

Canvas Lectures

- Profit Maximization and Unethical Corporate Behavior - Guillemín (5:45)
- Understanding Unethical Employee Behavior - Guillemín (3:30)

Required Reading and Viewing

- Michele Simon (2006). [Appetite for Profit: How the Food Industry Undermines Our Health and How to Fight Back. Chapter 1: Anatomy of a Food Corporation: Why We Can't Trust Them](#) (p. 1-19). Note: Although this book was published in 2006, this introductory chapter provides an analysis that reflects the key concerns espoused by food activists and policymakers concerning a single-minded profit motivation for corporations. (p. 1-8).
- Marion Nestle (2013). [Food Politics: How the Food Industry Influences Nutrition and Health \(Tenth Anniversary Edition\). Introduction: The Food Industry and "Eat More"](#) (p. 1-28). Note: The tenth edition of this food policy classic is a well-documented, first-hand account of how the food industry advances its interests. This chapter provides an overview of the book's underlying public health concern (i.e., the food industry's drive for profit by making people eat more).

Assignments Due

- Exploratory Exercise #2: Violation Tracker Exercise
- Weekly Quiz #1
- Weekly Prompt

Week 3: Sustainable Business Behavior (Part 2: Good Companies)

Learning Objectives

- Define the characteristics of ethical companies.
- Describe the economic underpinnings of sustainable food businesses.
- Review how existing and new (startup) food companies promote sustainability.

Canvas Lectures

- What is an ethical company? - Guillemain (3:49)
- Drivers of Corporate Sustainability - Guillemain (7:31)
- Consumer Demand for Sustainable Products - Guillemain (8:10)
- Cost Savings through Operational Efficiency - Guillemain (8:40)
- Socially Responsible Investing - Guillemain (7:24)

Required Reading and Viewing

- [Capitalizing on the shifting consumer food value equation](#), Deloitte Development LLC, 2016. Read the Executive Summary (p. 1-5). Note: This document explains that “Traditional Drivers” for food consumption (i.e., taste, price, convenience) have been overtaken by “Evolving Drivers,” which include health, safety and social impact. Food businesses have been increasing sales based on this fundamental shift in consumer demand.
- Benjamin Lorr (2020). The Secret Life of Groceries: The Dark Miracle of the American Supermarket. “Quote Health Food” (p. 57-60). Note: Why does Joe Coulombe start to sell health foods at Trader Joes?

- Lynn A. Stout. [“The Shareholder Value Myth.”](#) Cornell Law School, Cornell Faculty Publications. April 19, 2013 (p. 1-8). Note: The author argues that the Shareholder Primacy Theory, where company managers are evaluated based on short-term profits for shareholders, is too narrow, jeopardizing long-term profitability for a range of stakeholders. This argument has taken hold as business leaders think about their success in new ways, including sustainability.
- [“Business Roundtable Redefines the Purpose of a Corporation to Promote ‘An Economy That Serves All Americans.’](#) Business Roundtable, August 19, 2019 (p. 1-4). Note: The Business Roundtable is a powerful trade association whose members are chief executive officers of major United States companies. Their statement on the purpose of corporations signals a move away from the theory of shareholder primacy and recognizes that business value is created over a long time frame for a variety of stakeholders.
- Kevin Moss, [“With New Business Roundtable Statement, Are 200 CEOs Stuck in Yesterday’s Corporate Sustainability?”](#) World Resource Institute, August 22, 2019 (p. 1-4). Note: This article from WRI, a major environmental organization, criticizing the Roundtable’s statement as a claim lacking key commitments needed to show that corporations are “acting in the interest of all stakeholders—not just their shareholders.”

Assignments Due

- Exploratory Exercise #3: Management Maturity Matrix
- Weekly Quiz #2
- Weekly Prompt

Week 4: Food Trade Associations

Learning Objectives

- Outline the complex policy roles played by food trade associations.
- Describe how food trade associations promote/undermine sustainability efforts.
- Provide examples of specific food trade association sustainability mission statements and programs.

Required Reading and Viewing

- Sustainability in the Food Industry. Food Marketing Industry (April 21, 2021). (p. 5-15)
- Making the Business Case for Sustainability: A Guide for Practitioners. Food Marketing Institute (2015) (p. 1-10). Note: Also skim “Examples in Action.”
- Marion Nestle (2013). Food Politics: How the Food Industry Influences Nutrition and Health. Chapter 6: Winning Friends, Disarming Critics (p. 137-158)

Assignments Due

- Exploratory Exercise #4: Trade Association Review
- Weekly Quiz #3
- Weekly Prompt

Week 5: Sustainable Supply Chain Management

Learning Objectives

- Review the components, function, and nature of the food supply chain.
- Describe the social, political, and economic complexities that promote unethical business behavior within the supply chain.
- Provide examples of failed and successful initiatives that seek to influence the food supply chain.

Required Reading and Viewing

- The Secret Life of Groceries (2020) by Benjamin Lorr. “The Bottom of the Commodity Chain” (p. 213 - 258).
- Villena, L (March-April, 2020). A More Sustainable Supply Chain. Harvard Business Review, 1-8.

Assignments Due

- Exploratory Exercise #5: Sustainability Labeling Review
- Weekly Quiz #4
- Weekly Prompt

Week 6: Assessing Sustainable Business Behavior

Learning Objectives

- Describe a model that evaluate a company’s level of sustainability commitment.
- Learn to read and assess a Corporate Social Responsibility (CSR) report.
- Define key terms and concepts related to CSR reporting.

Canvas Lectures

- Assessing Sustainability Commitment in the Food Industry - Guillemín (13:17)
- Sustainability Management Maturity Matrix - Guillemín (7:25)
- Corporate Social Responsibility Report - Guillemín (9:20)
- How to Read a CSR Report - Guillemín (7:36)

Required Reading and Viewing

- [How to Read a Corporate Social Responsibility Report: A User Guide](#): Institute for Responsible Investment, Boston College Center for Corporate Citizenship, 2010. Note: Read the Executive Summary section (p. 2-4) and use it as a reference when completing the course assignment that evaluates a CSR Report.
- [Creating Shared Value and Sustainability Report](#). Nestle Corporation, 2020 (p. Note: This document is used to exemplify CSR reporting practices, including identifying materiality, SDG goals, responsible sourcing, and human rights reporting.

- Benjamin Lorr (2020). **The Secret Life of Groceries: The Dark Miracle of the American Supermarket**. "Mildly Untrained, Mildly Invasive" (p. 192-195). Note: This chapter discusses the role of sustainability auditors and their limitations.
- [HUNGRY FOR CHANGE: Are companies driving a sustainable food system?](#) CPD North America, Inc, 2020. Note: Read "Key Take Aways for Food System Stakeholders" and "Key Actions for Companies" (p. 3-4)

Assignments Due

- Exploratory Exercise #6: CSR Report Review
- Weekly Quiz #5
- Weekly Prompt

Week 7: Food Distribution

Learning Objectives

- Provide a historical context to the modern food transportation and refrigeration systems.
- Describe the environmental and social impacts of food distribution systems.
- Review sustainability solutions promoted by food distributors.

Canvas Lectures

- Food and Transportation - Guillemin (12:08)
- Why food is transported - Guillemin (7:36)
- Food Distribution Channels - Guillemin (12:55)
- Local and Regional Food Distribution - Guillemin (10:46)
- EPA's SmartWay Program - Guillemin (12:07)
- History of Refrigeration and Food (1800s) - Guillemin (5:42)
- History of Refrigeration and Food (1900s) - Guillemin (6:09)
- Refrigeration and Environmental Impacts - Guillemin (11:06)

Required Reading and Viewing

- Benjamin Lorr (2020). [The Secret Life of Groceries: The Dark Miracle of the American Supermarket - Another Hundred Dollar Work Week; Debt and Hope](#) (p.89-98). Note: These two chapters describe the dire economic circumstance of freight drivers. July 8, 2021
- Nikolaus Sievers (July 8, 2021). [How to Drive Greater Sustainability in Food Logistic](#). Food Logistics Magazine.
- [ASHRAE Position Document on NATURAL REFRIGERANTS](#), American Society of Heating, Refrigerating and Air-Conditioning Engineers, 2011 (p. 1-10).

Recommended Material

- Video: [History of Food Distribution](#) (3:26)

- Video: [Roadtrip Follows Strawberries Across America](#), National Geographic (1:48). Note: Please excuse the advertisement that precedes this video.
- Video: [The Story of Frozen Food](#) (2:40)

Assignments Due

- Assigned SIP Presentation (Group 1)
- Weekly Quiz #6
- Weekly Prompt

Week 8: Food Manufacturing

Learning Objectives

- Understand why foods are processed and the associated benefits and drawbacks.
- Describe the environmental impacts of food processing.
- Review Lean Manufacturing and Pollution Prevention practices for reducing waste.
- Describe leading sustainability efforts undertaken by food manufacturers.

Canvas Lectures

- The History of Food Processing and Packaging - Guillemin (10:15)
- Why Foods are Processed - Guillemin (5:00)
- Food Processing Methods - Guillemin (6:30)
- Food Processing and Environmental Impacts - Guillemin (10:05)
- Environmental Strategies for Food Processing - Guillemin (11:59)

Required Reading and Viewing

- Melanie Warner (2014). Pandora's Lunchbox: How Processed Food Took Over the American Meal. Why Bread Needs Strange Ingredients (p. 99-104): Note: If you ever wondered why food additives are so popular in processed foods, this story of breadmaking provides insight into the question.
- Eric Schlosser (2012). Fast Food Nation: The Dark Side of the All-American Meal. Excerpt: "The most dangerous job" (p. 169-183). Note: This description of a meat processing plant offers a picture of the industry's perilous efficiency.
- Benjamin Lorr (2020). The Secret Life of Groceries: The Dark Miracle of the American Supermarket - Co-Packing at Golding Farms (p. 142-148). Note: This excerpt describes the role of co-packing facilities, providing an insight into contemporary food manufacturing.

Recommended Material

- Video: [Lifting Up Leadership: Commonwealth Kitchen](#) (6:38). Note: In this video, Jen Faigel, the Executive Director and Co-Founder of Commonwealth Kitchen, explains how a small-scale food incubator ends poverty and creates jobs.
- [ENERGY STAR Focus on Energy Efficiency in Food Processing](#). Note: This U.S. EPA website shows how the EPA Energy Star program seeks to improve energy efficiency by providing energy performance indicators for food processing companies.

Assignments Due

- Assigned SIP Presentation (Group 2)
- Weekly Quiz #7
- Weekly Prompt

Week 9: Food Packaging

Learning Objectives

- Review the history and purpose of food packaging.
- Describe the types of materials used for packaging.
- Explain the environmental impacts of packaging.
- Explore the waste management policies and strategies designed to address plastic packaging reduction and reuse.
- Review sustainable alternatives to plastic packaging.

Canvas Lectures

- Food Packaging Materials and Methods - Guillemain (7:04)
- Packaging Waste Management Strategies - Guillemain (14:47)

Required Reading and Viewing

- Video: [A Brief History of How Plastic Has Changed Our World](#) (5:37). National Geographic. Note: This video explains the rise of plastic in consumer products after World War II and concerns about environmental impacts.
- [Plastic Recycling is an Actual Scam](#) (8:44). Climate Town. Note: This entertaining video takes a highly anti-corporate view, however, it backs up its points with convincing references. The video argues that the packaging industry promoted recycling as a way to pacify environmental concerns without dealing with the problem of plastic packaging waste.
- [Annie's Pledges to Purge a Class of Chemicals From Its Mac and Cheese](#), Feb. 19, 2021 (p. 1-5). By Michael Corkery, New York Times. Note: This article describes how the company Annie's is taking steps to remove the problematic chemical ortho-phthalates from its packaging.
- [Myths & Realities of Phthalates in Food Containers](#) (p. 1). American Chemistry Council (ACC). Note: The ACC is an industry-led organization. This website downplays the evidence concerning the risks of Phthalates.
- [Purchasing Safer Compostable Food Service Ware: How to Avoid Fluorinated Chemicals](#) (p. 1- 4). Collaborative Network for a Cancer-Free Economy. Note: This short guide highlights compostable products that, unfortunately, contain per- and polyfluoroalkyl substances ("PFAS") that are associated with cancer, developmental toxicity, immunotoxicity, and other health effects. These chemicals persist in the environment, thereby contaminating compost products and the soils that receive compost amendments.

Recommended Materials

- Video: [The Big Sort: An Insider's Tour of a Recycling Plant](#) (4:43). Science Friday. Note: This video offers a tour of a "single sort" Material Reuse Facilities. (MRFs, pronounced "MURFs"), otherwise know as recycling facilities. Their highly mechanized operations were designed to sort paper, cardboard, glass, metal, and plastic containers.
- [What is the National Sword?](#) (p. 1). Center for EcoTechnology. Note: This webpage provides a short description of the National Sword or "Green Sword", a policy in China that has banned the importation of certain types of solid waste, as well as set strict contamination limits on recyclable materials.
- [Do Coca-Cola Cans and Bottle Contain BPA?](#) (p. 1 - 3). Coca-Cola Company. Note: This online statement by Coca-Cola appears to be ten years old, despite the ongoing revelations about PBA and other endocrine-disrupting chemicals found in packaging. The website features many claims that lack references and other statements that defer responsibility.

Assignments Due

- Assigned SIP Presentation (Group 3)
- Weekly Quiz #8
- Weekly Prompt

Week 10: Food Retailing

Learning Objectives

- Recount the history of food retailers in the US from the early 19th century to the present.
- Explain the economics of the food retail sector and its different store formats.
- Review how to improve store operational efficiency to reduce energy, waste management and refrigerant costs.
- Review alternative food retail formats, including food co-ops and zero-waste stores.
- Explore sustainable sourcing approaches and third-party certification programs that allow retailers to feature sustainable and ethical products.

Canvas Lectures

- History of U.S. Food Retail (1890s to 1940s) - Guillemín (9:03)
- History of U.S. Food Retail (1950s to Present) - Guillemín (11:25)
- Food Retail Business - Guillemín (13:18)
- Food Retail Store Formats - Guillemín (12:59)

Required Reading and Viewing

- Benjamin Lorr (2020). *The Secret Life of Groceries: The Dark Miracle of the American Supermarket*
 - The Crack, a Crack, Just Crack (p.134-139 - ignore the last two paragraphs). Note: This chapter explains "trade spend," a strategy that grocery stores use to extract revenues from vendors, rather than consumers.

- The Retail Experience (p. 157-184). Note: In Part IV of the book, Lorr recounts his experience working at the fish counter at Whole Foods, including insights on lean manufacturing strategies, and worker pay/rights.
- [“Grocery chains make strides in sustainability”](#) by Russell Redman, Supermarket News (July 22, 2019) (p. 1-5). Note: Compared to 10 years ago, it is now common for large supermarket chains to champion their sustainability practices. This article from a trade publication provides an example of recent efforts by several large chains.
- Video: [New Pioneers](#) (4:50). Note: The National Co-op Grocers (NCG) represent over 200 food co-ops in the United States. This page provides a history of the co-op movement, including the “New Pioneers” video, which discusses how the co-op model began in England and now serves over 1 billion people across the world:
- [“Daily Table is on a mission to stop food waste and feed the hungry”](#) by Janelle Nanos, Boston Globe (May 13, 2016) (p. 1-2). Note: This story is about a Boston nonprofit organization that is experimenting with a new retail model that sells healthy, affordable food in low-income neighborhoods. In 2018, the Daily Table expanded to two stores and plans to add two more by the end of 2020.

Recommended Material

- Video: [Are Zero Waste shops the future?](#) - The Zero Waste Shop (3:00), June 25, 2018. Note: This video features Britain's first no-packaging supermarket, a phenomenon that has spread to many European countries, Canada and the United States. Earth Food Love is a dry goods store run by an ex-pro footballer and his wife in the trendy and progressive town of Totnes in Devon, England.
- [Nearly 1 in 3 new stores opening in the US is a Dollar General](#) by Nathaniel Meyersohn, CNN Business (May 6, 2021) (p. 1-2). Note: The rapid rise of dollar stores signals one of the most striking changes in the food retail sector, finding a successful low-cost niche in a food retail marketplace overcrowded by traditional supermarkets and convenience stores selling food.

Assignments Due

- Assigned SIP Presentation (Group 4)
- Weekly Quiz #9
- Weekly Prompt

Week 11: Restaurants

Learning Objectives

- Describe the history of food service providers, from 19th century Parisian “restaurants” to the advent of fast food in America.
- Review the various restaurant formats and their target audiences.
- Describe the economic and demographic trends that have led to the increased popularity of out-of-home dining experiences.
- Highlight the corporate social responsibility (CSR) initiatives and “green” restaurant trends.

- Explore the topic of worker rights and the connection between food justice and the Slow Food Movement.

Canvas Lectures

- History of Restaurants - Guillemin (16:16)
- Restaurants Formats - Guillemin (5:45)
- Food Service Economics - Guillemin (10:19)
- Sustainable Operations for Restaurants - Guillemin (7:47)
- The Founder: The Birth of McDonald's and the Goals that Drive Fast Food Culture in America - Guillemin (22:15)

Required Reading and Viewing

- National Restaurant Association (2013). [Shedding Light on Sustainability](#) (p. 1-15). Note: Read pages 3-5 of this document to learn how the largest restaurant trade association promotes sustainability. Skim pages 5-15, which focus on specific efficiency programs.
- Saru Jayaraman (2013). [Behind the Kitchen Door. Chapter 2: Real Sustainability, Please!](#) (p. 19-32). Note: This chapter explores the issue of workplace fairness and equity among restaurant workers, including staff at high-end establishments featuring organic, local, and “slow food” menus.
- Video: Saru Jayaraman, “[We the People: Workers Rising for Fair Wages](#),” Bioneers Conference (2017). Note: Start the video at 5:00 and watch until 24:15 (watch more if you’re interested). This impassioned speech provides many insights and facts about the economic and social plight of restaurant workers, particularly women.

Assignments Due

- Assigned SIP Presentation (Group 5)
- Weekly Quiz #10
- Weekly Prompt

Week 12: Institutional Food Service Providers

Learning Objectives

- Review the types of institutional foodservice providers.
- Discuss the role of foodservice management companies.
- Explain the challenges and opportunities for institutions to purchase more sustainable products.
- Provide examples of initiatives that improve food sustainability and social justice at institutions.
- Showcase the Corporate Social Responsibility (CSR) efforts of a major food management company.

Required Reading and Viewing

- Madeleine Pullman and Wu Zhaohui (2012). [Food Supply Chain Management: Economic, Social and Environmental Perspectives; Chapter 7: Food Service](#) (p. 160-182). Note: Concentrate on institutional food operations and food management companies (p. 165-178).
- Video: Ann Cooper, TED Talk. [School Lunches](#), 2007 (19:37).

- Video: Jamie Oliver, TED Talk.. [Teach Every Kid About Food, 2010](#) (21:53).
- Video: Zagat Documentaries, Episode 38 (May 12, 2017). [Meet the Inmates of Fife and Drum, a Restaurant Redefining Prison Food](#) (7:43).

Assignments Due

- Assigned SIP Presentation (Group 6)
- Weekly Quiz #11
- Weekly Prompt

Week 13: Class Review and Conclusion

Learning Objectives

- Discussion on sustainability, food businesses, and the future food system.
- Review course materials and share insights and feedback.
- Share lessons learned from the final project.

Required Reading and Viewing

- Video: [How will we survive when the population hits 10 billion?](#) Charles Mann's TED Talk (2018). (12:50). Note: This Ted Talk places sustainability solutions in two camps represented by technologically-minded "Wizards" and small-scale, community-oriented, conservation-minded "Profits."
- Video: [Dr. Albert Bartlett The Exponential Function](#) (10:58). Note: This recorded college lecture by Dr. Albert Bartlett reviews the math and explains the policy implications of exponential growth.

Assignments Due

- Final Assignment due December 14. Confirm Final Assignment by Nov. 10.
- Weekly Quiz #12
- Weekly Prompt