



Course Subject, Number and Title

M H R 310: Challenges & Solutions in Business Sustainability

Meeting Time and Location

Section 001: Tuesdays & Thursdays; 1:00 PM – 2:15 PM; 3335 Grainger Hall

Section 002: Tuesdays & Thursdays; 11:00 PM – 12:15 PM; 3335 Grainger Hall

Instructional Modality

In-person

Instructor

Professor Ann Terlaak (ann.terlaak@wisc.edu)

she/her/hers

5297 Grainger Hall

Office Hours

By appointment; in-person or virtual via <https://uwmadison.zoom.us/my/annterlaak>

Canvas Course URL

Section 001: <https://canvas.wisc.edu/courses/343671>

Section 002: <https://canvas.wisc.edu/courses/343674>

Course Description

Provides central knowledge and skills to tackle challenges at the intersection of business and sustainability. Analysis of the causes of sustainability challenges as relating to business and study of frameworks and measurement systems for incorporating sustainability into corporate decision-making and business analysis.

Learning Outcomes

- Explain the social, economic, and environmental dimensions of the sustainability challenges of business activity and identify potential trade-offs and interrelationships among these dimensions at a level appropriate to the course.
- Analyze the causes of and solutions for the sustainability challenges resulting from business activity.
- Apply sustainability principles and/or frameworks to addressing the challenge of incorporating sustainability into corporate decision-making.

Course Content

Sustainability is a nested concept: the global economy is nested within society, which, in turn, is nested within earth's life-support system. This nested view highlights critical interdependencies. Thriving business requires a just and stable society, and both need to be supported by a healthy natural environment. This course analyzes these interdependencies from the perspective of business. Why and how has business contributed to today's societal and environmental challenges, and what role can, should, and does it play in addressing these challenges?

The class is structured into two interrelating segments. The first analyzes the larger system within which business operates, and how the interaction between this system and business affects sustainability. The second segment dives into issues of measuring, reporting, and enacting corporate sustainability. In terms of enacting sustainability, this course pays particular attention to circular business models and corporate carbon strategies, in line with these topics being at the forefront of contemporary sustainability discussions. But we will also wrestle with other topics such as second chance companies that focus on the “people part” of sustainability.

Course Material

Course materials other than cases are posted online on the Canvas course webpage. Cases are held electronically at Harvard Business School. A link to the case package is below and on the class webpage. You will need to create an account and purchase the case package (\$45.12).

<https://hbsp.harvard.edu/import/1014530>

You should also secure access to the FactSet dataset. Use [this page](#) to register (for free) with your wisc.edu email. Register early on. It takes a few days to get access and you might want to use FactSet for the Environmental Performance Assessment (see “Assignments” for more info).

Course Credit Information

This class carries 3 credits. It meets for two 75-minute class periods each week over the spring semester and carries the expectation that students work on course learning activities (reading, writing, studying, etc.) for about 3 hours out of classroom for every class period.

Course Designation and Attributes

Liberal Arts and Science Attribute

Level – Intermediate

Sustainability Attribute

Regular and Substantive Student-Instructor Interaction

Students will attend and participate in regularly scheduled class sessions during which there will be direct instruction and interaction between students and instructor. The instructor will facilitate active engagement with the materials and provide regular feedback on student learning activities.

Requisites

Junior standing or member of Business Exchange program; not open to graduate students.

Performance Measures & Assignments

Performance Components

Class Participation (<i>Individual</i>)	20%
Analysis Brief (<i>Team</i>)	20%
Case Briefs (x6) (<i>Individual</i>)	15%
Firm Environmental Performance Assessment (<i>Team</i>)	20%
Position Statement (<i>Team</i>)	20%
Review Brief (<i>Individual</i>)	5%

Class Attendance & Participation (20%)

The success of the course depends upon our shared responsibility to develop an active and respectful intellectual exchange. Attendance is required, but it is only the first step toward meaningful participation. You need to come to class fully prepared and ready to engage in lively, pointed, and collegial discussion and analysis of the session's assigned topic and readings.

You can, in general, make up for up to three missed classes by submitting a ~750 word essay for each missed class on a prompt that I will provide. However, not every class can be made up. As a general rule, there are no make-ups available for class sessions for which case briefs or other assignments are due. The make-up essay is due no later than two weeks after the missed class. To the extent possible, please notify me of your absence in advance via email. More than three absences without make-up assignments will automatically lower your final grade into the next lower grade category. Please talk with me if you are experiencing circumstances (such as illness) that require prolonged absences so that we can figure out a solution.

Analysis Brief (20%) – Choose **ONE** of the 5 briefs listed below.

You need to prepare and present, together with a group, one analysis brief on a topic of your choice (see below for topic options). There are two groups per topic and a max of four students per group. Please sign-up for a topic (and group) via the Canvas course webpage. Sign-up is on a first come, first serve basis. Make sure to put your name down at the beginning of the semester to secure your choice topic. Also consider the topic's due date to balance your assignment schedule across classes.

- **Analysis Brief 1 (due 2/16): Putting a price on carbon: Carbon markets & taxes**
- **Analysis Brief 2 (due 2/21): Rhino horn trading: Win-win or hell, no?**
- **Analysis Brief 3 (due 3/7): Benefit Corporations: Solving the problem from within?**
- **Analysis Brief 4 (due 4/6): Circular economy & eco-industrial parks**
- **Analysis Brief 5 (due 4/25): Second Chance Companies**

An analysis brief consists of a written group analysis and a group presentation in class. For a given topic, both groups will present their analysis in the session in which their analysis brief is scheduled. There is no specific format or page limit for the written analysis. That said, in terms of format, keep it professional (provide cites, references, etc.). In terms of length, keep it concise

and coherent. In the past, analysis briefs have been around 5-6 pages single-spaced but, again, there is no hard page requirement or limit. For the presentation, you can prepare a PowerPoint presentation or use any other means to convey your analysis to your audience. Each group's presentation should take about 15 – 20 minutes.

Groups are expected to conduct their own research. The analysis should be structured in one of two ways: For the analysis briefs on *Rhino Horn Trading* and *Benefit Corporations*, you will briefly explain the phenomenon at hand and then analyze its pros and cons before coming to your own conclusion. Each group will comprehensively analyze both pros and cons in their write-up. However, for the class presentation, one group will play the proponent role and the other group will play the opponent. For example, for the *Benefit Corporations* topic, the proponent group plays the role of a Benefit Corporation lobbyist that argues why this legislation/corporate form is an effective means to address sustainability issues. The opposing group will argue why this corporate form may be ineffective, if not counterproductive, for business sustainability.

The analysis briefs on *Putting a Price on Carbon*, *Eco-Industrial Parks*, and *Second Chance Companies* ask you to analyze the key success factors (KSF) for the phenomenon at hand. This will require that you research, analyze, and contrast multiple case studies in the topic area, all with the goal to identify what makes them work. For example, for the brief on *Putting a Price on Carbon* (where one group will pick carbon markets and the other carbon taxes), each group will select two to three real world carbon market (tax) examples. Through the study of these examples, and through other relevant background research, each group then assesses the example's success/failure, analyze the attributes on which these market (tax) examples differ, and, from there, derive the general KSF for carbon markets (taxes) to be successful.

We will discuss further details as the due date of each analysis brief approaches. For most topics, there are basic readings assigned for the entire class. Analysis brief folks need to do additional background research on their topic. For the write-up and presentation, assume that the class is familiar with the basic readings and focus on *applying* this information as well as the additional knowledge that you gathered through your own research.

Analysis briefs are graded based only on the written group analysis. Grading considers analytical quality (Depth? Coherence? More than a simple recounting of information from the readings?), factual supporting (do you support your claims with facts, data, or examples?), conceptual grounding (do you (correctly!) ground your arguments in concepts discussed in class), and clarity/professional writing (is your writing professional and easy to follow?).

We will use a peer evaluation system for group members to evaluate each other's contributions to the group project. For a member that is identified as free-riding, the group grade will be individually downgraded. For a member that has contributed significantly more than all others, the group grade may be upward adjusted.

Upload your written analysis and presentation (if used) to the class webpage prior to the class session in which your analysis brief and presentation are due.

Case Briefs (total of 15%)

Case briefs are *short*, written answers (around one page) to questions posed for a case discussed in class. Your answers need to provide clear evidence that you have prepared the case — i.e., that you have read the case and thought about the posted preparation questions in some detail. Case briefs are to be prepared individually.

Grading is coarse: 0 points if you do not hand in the brief; 1 point if your answers are incomplete (e.g., you only answer a subset of the posted case questions) or suggest that you haven't really thought about the questions; 2 points if your answers are complete and reveal that you have thought about the case in some depth.

You need to upload your case brief prior to the class session in which it is due. Submitting after the class session will result in point deductions.

Firm Environmental Performance Assessment (20%)

This assignment asks you to *assess* and *rank order* the environmental performance of several firms (I will provide a list of firms in class). To assess firm environmental performance, you will need to identify at least four different environmental performance measures that, when combined, you believe to represent the firm's overall environmental performance. You will need to use data from at least four different types of data sources to construct your measures (this means that using e.g. firm CSR reports counts as one type). If you choose to derive two measures from a given data source, you may also use just three different data sources. The goal is to come up with a multidimensional environmental performance score for each firm that you then use to establish a ranking.

You need to explain, discuss, and justify your choice of performance measures, your methodology for combining these measures to arrive at an overall firm performance measure, and your methodology for establishing your final ranking. You also need to discuss and justify the data sources that you choose (e.g., advantages and limitations of each source?).

You are strongly encouraged to research different data sources and identify environmental performance measures that are relevant but go beyond the usual suspects like GHG emissions. A few data sources that get you started include firm level ESG data included in [FactSet](https://www.factset.com/), CSR Hub (<https://www.csrhub.com/>) and the data sources that CSR Hub draws on (https://www.csrhub.com/our_data_sources/); EPA's TRI database (<https://www.epa.gov/toxics-release-inventory-tri-program/tri-data-and-tools>) which provides information on toxic releases (as well as PERI's Toxis Air/Water Polluter Index (<http://grconnect.com/tox100/ry2017/>); EPA's echo database (environmental enforcement and compliance history), EPA's Envirofact (<https://enviro.epa.gov/>), Newsweek's environmental performance rankings, Forbe's JUSTCapital rankings, CDP (formerly Carbon Disclosure Project) at <https://www.cdp.net/en>, firms' CSR reports, a firm's in/exclusion in various SRI indices (such as Dow Jones Sustainability Index, FSX60 Carbon Efficiency Index). Your creativity and efforts to dig deeper and find additional sources, or use the above sources and measures in analytic and innovative ways, will be rewarded.

Form groups of max four students via the course webpage and complete the assignment as a group. Use a PowerPoint presentation to describe your analysis and findings. **Upload this presentation (as well as supporting files such as an excel spreadsheet containing your data, if any) to the class webpage by 9:00 AM (MORNING!) on Monday, March 27th.** I will select a few groups to present and discuss their findings in more detail during class on March 28th.

Your submitted presentation (and limited supporting files) is the sole basis for grading (i.e., you do not hand in anything else). I will grade based on the quality of your analytical approach, thoroughness/completeness, coherence, and creativity. We will use a peer evaluation system for group members to evaluate each other's contributions to the group project. For a member that is identified as free-riding, the group grade will be individually downgraded. For a member that has contributed significantly more than all others, the group grade may be upward adjusted.

Position Statement (20%)

Should UW (WFAA) divest its endowment from fossil fuels? Initiated over a decade ago by the non-profit organization 350.org, nationwide campaigns (as well as local ones led by UW student orgs) are asking that university endowments and other institutional investors divest from fossil fuel. In particular, they are asking the following (<https://gofossilfree.org/not-a-penny-more/>):

We want institutional investors, our town, city or state pensions and other public funds, to immediately freeze any new investment in fossil fuel companies, and divest from direct ownership and any commingled funds across all asset classes including fossil fuel public equities and corporate bonds within 5 years.

We do recommend a complete exclusion of ALL fossil fuel investment. However, we acknowledge that it might be difficult to identify the entire fossil fuel chain and therefore we suggest using the 200 publicly-traded companies list. This list include the vast majority of traded coal, oil, and gas companies and ranks them by their amount of reserves.

For this assignment, you will play the role of an outside counsel providing a position paper whether or not WFAA should meet these divestment demands. What speaks for WFAA divesting its endowment from fossil fuels, what speaks against it? This question is more complex than initially meets the eye. You are expected to provide a careful and nuanced discussion of the arguments that speak for and against the matter, as well as an ultimate recommendation and your reasoning behind this recommendation.

Complete the assignment in groups of max four students (depending on class size). Your position paper will be evaluated based upon its completeness, nuance, coherence, and correctness. We will use a peer evaluation system for group members to evaluate each other's contributions to the group project. For a member that is identified as free-riding, the group grade will be individually downgraded. For a member that has contributed significantly more than all others, the group grade may be upward adjusted.

Upload your position statement to the class webpage before class on March 28.

Review Brief (5%)

This assignment asks you to review and reflect upon what you have learned in class. For each topic (I will provide a list of topics in class), you are expected to write one brief paragraph detailing the most important insights or skills that you have taken away. These can be derived from any part of the class — the readings, case, homework assignment, presentations, class discussion, etc.

Complete this assignment individually. It is graded in a coarse manner: 0 points if you do not hand in the review brief; 1 point if you hand it in but your answers are incomplete (i.e., don't address each topic) or the majority of answers reveals that you did not actually engage in the topic, 2 points if your review addresses each topic but some answers reveal that you did not actually engage in the topic; 3 points if your review is complete and your answers show that you reflected on each topic.

Upload your review brief to the class webpage before class on May 4th.

Final Grades

The procedure for establishing final grades combines absolute and relative grading methods. In a first step, for each student and each performance component, I convert the student's raw score into a z-score. Second, I weigh this z-score with the assignment's weight. Third, I sum weighted scores across performance components to create a final, standardized score for each student. These final scores are then rank-ordered.

There is no pre-determined correspondence between z-score cutoffs (or percentile intervals) and final letter grades. Instead, a correspondence between z-score cutoffs and letter grades emerges from naturally occurring gaps in this rank-order: The top cohort of students that are closely ranked together receives an A, the next cohort of tightly ranked students receives an AB, and so on. Possible grades range from A to F; actual grades from previous classes tend to spread somewhat equally across A, AB, and B, with fewer grades in the BC and C range.

The grading method used in this class allows for final grades to more accurately and fairly reflect each student's performance in class, relative to their peers. If at any point during the semester a student stands at risk of failing the class, I will alert that student promptly to grant sufficient opportunities, as appropriate, to remedy this situation. I also am happy to discuss a student's standing in class at any point during the semester.

Diversity and Inclusion

Diversity is a source of strength, creativity, and innovation for UW-Madison, and this course. In this course, we value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich not just this class but the entire university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world: <https://diversity.wisc.edu/>

Accommodations for Students with Disabilities

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform me of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. I will work either directly with you or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.”

No Laptop, No Cellphone Policy

Laptop and phone use during class is distracting and disrespectful to the instructor and fellow classmates. It therefore is prohibited. Please discuss with me possible exemptions from this policy if you require a laptop or another device for notetaking purposes during class time.

Academic Integrity

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. *Cheating, fabrication, plagiarism, cutting and pasting text from the Web without quotation marks or proper citation; paraphrasing from the Web without crediting the source; use of artificial intelligence software for essay creation; unauthorized collaboration, signing another person's name to an attendance system, and helping others commit these acts are examples of academic misconduct.* Academic misconduct result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to <https://conduct.students.wisc.edu/>.

Feedback

I am happy to discuss the course, your progress, or any other issues related to this course on an individual basis. Please email me to set up a meeting. Please do not wait until the end of the semester to discuss with me any problems with the course or your performance. Your success in this class is important to me – come talk to me early in the semester!

Calendar Overview – MHR 310 – Spring 2023

#	Date	Due	Topic
1	Jan 24 (T)		Course administration & introductions
2	Jan 26 (R)		CSR, ESG, CS, and other letters of the alphabet: Good for business <i>and</i> planet?
Corporate Sustainability within the Larger System			
3	Jan 31 (T)		Capitalism & sustainability
4	Feb 2 (R)		Fishbanks Simulation I
5	Feb 7 (T)		Fishbanks Debrief
6	Feb 9 (R)		Market failures, sustainability challenges, and responses
7	Feb 14 (T)	Analysis Brief 1 [#]	Putting a price on carbon
8	Feb 16 (R)	Case Brief 1*	Privatization as conservation tool – <i>Black Rhino case</i>
9	Feb 21 (T)	Analysis Brief 2 [#]	Rhino horn trading (and rhino bonds): relying on the magic of markets?
10	Feb 23 (R)		Market failures and solutions in energy efficiency
11	Feb 28 (T)	Position Paper*	Fossil Fuel Divestment: Shaping the system through capital shifts? Part I
12	Mar 2 (R)		Fossil Fuel Divestment: Shaping the system through capital shifts? Part II
13	Mar 7 (T)	Analysis Brief 3 [#]	Benefit Corporations: Solving the problem from within?
14	Mar 9 (R)	Canvas Questions*	Inflation Reduction Act: Regulating to decarbonize the economy (<i>online, asynchronous</i>)
SPRINGBREAK			
Corporate Sustainability: Measuring, Reporting, and Enacting			
15	Mar 21 (T)		Sustainability accounting & reporting
16	Mar 23 (R)	Case Brief 2*	Corporate carbon accounting – <i>Frito Lay case</i>
17	Mar 28 (T)	Env. Perf. Ass.* [^]	Assessing & ranking firm ESG performance – Part I
18	Mar 30 (R)		Assessing & ranking firm ESG performance – Part II
19	Apr 4 (T)	Case Brief 3*	Circular economy & byproduct strategies: <i>Cook Composites case</i>
20	April 6 (R)	Analysis Brief 4 [#]	Circular economy & byproduct strategies: Eco industrial parks
21	Apr 11 (T)	Case Brief 4*	Circular economy & cradle-to-cradle: <i>Herman Miller & Emma Footwear cases</i>
22	Apr 13 (R)		Circular economy & cradle-to-cradle: <i>Emma Footwear & Loop cases</i>

23	Apr 18 (T)		“Let’s continue this discussion in another class”- class
24	Apr 20 (R)		Speaker – Tim DeBruin (ERM; formerly Sn. Sustainability Manager at Amcor)
25	Apr 25 (T)	Analysis Brief 5 [#]	The people part of sustainability (part I): Second Chance Companies
26	Apr 27 (R)	Case Brief 5*	The people part of sustainability (part II): <i>Hot Chicken Takeover Case</i>
27	May 2 (T)	Case Brief 6*	Differentiation strategy & sustainability: <i>Star-Kist & Patagonia cases</i>
28	May 4 (R)	Review Brief *	Wrap-up

* Due for all students

Due for select students (as per sign-up)

^ Due on MONDAY March 27 at 9:00 AM

Class 1

Topic: Class overview, class administration, introductions

Content: We will get to know one another, preview the course, discuss assignments, expectations, and class organization. Bring your questions and we will sort it all out.

Reading:

- Course Syllabus
 - 2022: A tumultuous year in ESG and sustainability. Winston, A. 2022. *Harvard Business Review*
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Class 2

Topic: CSR, ESG, CS, and other letters of the alphabet: Good for business *and* planet?

Content: We will develop the backdrop of this course by looking at what labels like CSR, ESG, CS (Corporate Sustainability) actually describe. Does pursuing CSR/CS really help both business and the environment/society at large? What, really, can and can't business do in the sustainability realm? Is shareholder orientation a thing of the past and stakeholder orientation the new deal in town, as many suggest? What, precisely, is stakeholder orientation, and how far can it get us? These questions weave all throughout class but we will use today's session to tackle at least some of them head-on.

Readings:

- Corporate social responsibility, business strategy, and the environment. Reinhardt, F.L. and Stavins, R. 2010. *Oxford Review of Economic Policy*.
 - The Dangerous Allure of Win-Win Strategies. King, A. and Pucker, K. 2021. *Stanford Social Innovation Review*
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Class 3

Topic: Sustainable Capitalism: An Oxymoron?

Content: Understanding what business can do (and does), and can't do (and doesn't), both in general and in the sustainability space, requires looking at the market system within which it operates. We thus will spend today's class analyzing the U.S. capitalistic market system. What, exactly, describes this system, how has it evolved over time, what have been outcomes for society and the environment, and what does all this imply for the notion of sustainable business?

Readings

- Podcast: [The Rise and Fall of the Neoliberal Order](#). Gary Gerstle & Rob Johnson. *Institute for New Economic Thinking*, June 9 2022

- CSR Needs CPR: Corporate Sustainability and Politics. Lyon, T. et al. 2018 *California Management Review* 60(4): 5-24. (For this session, skim this article for its point on how corporations shape the rules of the game. We will revisit the article again in Class # 17 in the context of the Environmental Performance Assessment)
 - **Optional:** The importance of corporate political responsibility. Winston, A. et al. 2022. *Sloan Management Review*. (this is a more recent variant of the article above)
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Class 4

Topic: Fishbanks Simulation Game

Content: We will play a simulation game that teaches about limits to markets, the tragedy of the commons, and the challenges of designing and enforcing policies for sustainable resource management. The game is an interactive, web-based simulation that is made available by the MIT Sloan School of Management.

Readings:

- Introduction to Fishbanks
- Watch simulation instruction [here](#)

Class 5

Topic: Fishbanks Simulation – Debrief

Content: We will debrief last class' simulation. What are the dynamics and structures that cause the outcomes we observed, and what are leverage points for influencing these dynamics?

Readings:

- Public Goods and Common Resources. Krugman, P. and Wells, R. 2006. *Microeconomics*. (Chapter 17)
- [The Tragedy of the Commons: How Elinor Ostrom Solved One of Life's Greatest Dilemmas](#). David Sloan Wilson 2016.
- Optional: The Tragedy of the Commons. Harding, G. 1968. *Science* 162: 1243-1248 (A classic that everyone should touch at least once during their educational journey)

Class 6

Topic: Market Failures, Sustainability Challenges, and Responses

Content: What are some of the market processes that have led business activity to destabilize planetary earth support systems? We will build on the Fishbanks game to review different market failures, their effects on sustainability related market outcomes, and policy responses.

Readings:

- Externalities. Krugman, P. and Wells, R. 2006. *Microeconomics* (Chapter 16)

- Green and Competitive: Ending the Stalemate. Porter, M. and Van der Linde, C. 1995. *Harvard Business Review* (This article is 15+ years old and, for better or worse, *still* relevant today, especially with respect to its points on the need for and benefits of well-designed regulations).
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Class 7

Topic: Putting a Price on Carbon

Content: Many people view carbon taxes and Emission Trading Systems (i.e., markets for trading carbon emission permits) as cost-effective, market incentive-compatible mechanisms that can limit corporate CO₂ emissions by putting a price on carbon. We will use today's analysis briefs for shedding a light on the potential and limitations of these two regulatory tools, and on their Key Success Factors (KSF). We also will wrestle with the "wild west of carbon offsets".

Readings:

- [Carbon Pricing 101](#) Hafstead, M. (March 2019). *Resources for the Future*
- The Brave New World of Carbon Trading. Spash, C. 2010. *New Political Economy* 15(2): 169-195 (This is a bit of a hefty read but insightful and well worth it!)
- Browse the World Bank's [Carbon Pricing Dashboard](#)
- [These trees are not what they seem](#). Elgin, B. (December 2020) & [A top U.S. seller of carbon offsets starts investigating its own projects](#). Elgin, B. (April 2021). *Bloomberg Green*

Due for select students: Analysis Brief 1 – Putting a Price on Carbon

Class 8

Topic: Privatization as Conservation Tool

Content: Carbon markets, discussed in Session #7, seek to reduce GHG emissions by assigning (tradable) property rights to emit. In that way, they privatize the right to pollute. Today, we will use the Black Rhino case to examine whether and when privatizing a common resource (such a wildlife) can assist in the resource's conservation.

Readings:

- The Black Rhino (*in case package*)

Due for all: Case Brief 1- The Black Rhino. Submit brief answers to the following case questions. Make sure that you separate your thoughts on private game ranches for hunting from the discussion on legalizing horn trade. These two items interrelate but your analysis will be cleaner if you separate them, at least initially.

1. What speaks for and what against privatizing wildlife such as the black or white rhino for trophy hunting? (Focus your case brief on this question)
 2. Given your analysis in Q1, do you support private game ranches like John Hume's? (Brief answer to this question)
 3. Would legalizing the international sale and trade of rhino horns help conserve rhinos? Why/why not? (Cursory/brief answer to this question, perhaps in table format. This question serves to foreshadow session #8)
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Class 9

Topic: Rhino Horn Trading (& Rhino Bonds): Relying on the Magic of Markets?

Content: We will continue with the Black Rhino case and use today's Analysis Briefs to analyze whether legalizing the international sale and trade of rhino horns could help conserve the black rhino. We will also look at a novel financial instrument in conservation finance —yes, there is such thing as Rhino bonds! — to grapple with how they might help conservation efforts.

Readings:

- Browse the internet for news articles discussing legalizing the trade of rhino horns/ivory/etc. Then READ these articles and come prepared to discuss!
- [Rhino Bond Sold by World Bank in First Issuance of Its Kind](#). March 2022.. Bloomberg

Due for select students: Analysis Brief 2–Trading rhino horns: Win-win or hell, no!?

Class 10

Topic: Market Failures and Solutions in Energy Efficiency

Content: Increasing energy efficiency is the cheapest and cleanest form of energy “production”. It thus plays a key role in reducing GHG emission. Yet the market for energy efficiency is prone to failure such that many opportunities for cost effective energy efficiency are unexploited—a phenomena called ‘energy efficiency paradox’. We will study why and how the market for energy efficiency fails and learn about contemporary solutions that address these failures.

Readings:

- Unlocking Energy Efficiency in the U.S. Economy (Executive Summary). McKinsey Global Energy and Materials (2009) (This article is older so numbers are outdated. But it is still very useful for its explanations regarding the various types of market failures and solutions in energy efficiency)
- [Current Practices in Efficiency Financing: An Overview for State and Local Governments](#) (2016). Leventis et al. Lawrence Berkley National Laboratory. (Only read the executive summary – the full report is more in-depth than needed for this class)

Classes 11 & 12

Topic: Fossil Fuel Divestment: Shaping the system through capital shifts? Part I & II

Content: We will debate how UW (WFAA, really) should respond to demands to divest its endowment from fossil fuels. We will draw on your position statements to explore the case for and against divestment as a form of climate action.

Readings:

- Determined by each team's research

Due for all: Position Statement — Divesting from Fossil Fuels

Class 13

Topic: Benefit Corporations: Solving the Problem from within?

Content: Benefit corporation legislation tries to make businesses more sustainable by changing the system from within. When a firm incorporates as a Benefit Corporation (as opposed to e.g. a C-Corporation), it obligates itself to serve its broader stakeholders and not just its shareholders. We will use the analysis briefs to closely examine this new form of incorporating. What is its potential to create change from within? What its limits? As you prepare the class, be careful not to confuse Benefit Corporations with B-Corp certification/Certified B-Corps. (Certified B-Corps are required to also incorporate as a Benefit Corporation, but Benefit Corporations do not have to also seek B-Corp certification).

Readings:

- Familiarize yourself with [Benefit Corporations](#).
- Familiarize yourself with [B-Corp Certification](#)

Due for select students: Analysis Brief 3 - Benefit Corporation Legislation

Class 14: ONLINE & ASYNCHRONOUS

Topic: Inflation Reduction Act: Regulating to decarbonize the economy

Content: To wrap up the segment on the larger system within which business operates, we will use a podcast that discusses how the 2022 Inflation Reduction Act provides incentives and standards (yep, regulation) to hasten the clean energy transition. It's a long podcast but every minute is absolutely worth it. Do yourself a favor and listen to the whole thing. Then use the class webpage to answer a set of questions to validate your attendance and participation.

Readings:

- Podcast: [The single best guide to decarbonization I've heard](#). The Ezra Klein Show (with Jesse Jenkins). September 20, 2022

Due for all: Canvas questions. Go to week 7, class #14 to respond to a set of questions about the podcast. Not responding to these questions will equate to a missed class.

Springbreak

Class 15

Topic: Sustainability Accounting & Reporting

Content: As calls for firms to report their ESG performance have increased, a confusing multitude of reporting standards and frameworks have sprung up. In fact, the “business sustainability information value chain” has become quite complex and unwieldy. Efforts to merge standards and simplify the field are under way but it’s still a bit of a wild west out there. We will survey the landscape and analyze the current state of sustainability accounting and reporting.

Readings:

- We need Universal ESG Accounting Standards. Eccles, R.B. and Mirchandani, B. 2022 *Harvard Business Review*
- Overselling Sustainability Reporting. Pucker, K. 2021. *Harvard Business Review*
- **Optional:** A Comparative Analysis of Three Proposals for Climate-Related Disclosures. Eccles, R.G. June 11, 2022. *Forbes*
- **Optional:** Browse Harvard Business School’s “Impact Weighted Accounts Project” [webpage](#)

Class 16

Topic: Corporate Carbon Accounting

Content: Carbon accounting is a subfield of the broader field of sustainability accounting. We will use the Frito-Lay case to get familiar with the protocol for accounting for a firm’s greenhouse gas emissions. (Note: For instructions on how to go about the carbon accounting exercise in the case brief, read "Corporate Greenhouse Gas Accounting: Carbon Footprint Analysis". This background note is included in the HBS case package).

Readings:

- Frito-Lay North America: The Making of a Net Zero Snack Chip (in case package)
- Corporate Greenhouse Gas Accounting: Carbon Footprint Analysis (in case package)

Due for all: Case Brief 2- Frito-Lay North America. Submit a document with a brief answer to question 1 as well as a spreadsheet showing your calculations and answers for question 2.

1. If you are Al Halvorsen, what are the arguments that speak for, and against, the net zero facility idea?
 2. Use information from the reading “Corporate Greenhouse Gas Accounting: Carbon Footprint Analysis” as well as information from the case to calculate for Case Grande:
 - a. the metric tons of emissions of greenhouse gases from electricity and natural gases usages for each year from 2002 to 2007. Pay close attention to units when applying emissions factors. I uploaded a spreadsheet that contains Exhibit 5 from the case to facilitate your calculations.
 - b. the projected reductions in greenhouse gas emissions that will result from the proposed net zero project in years 2008 – 2010
 - c. the projected operating costs savings (electricity, gas, water) that will result from the proposed net zero project in years 2008 – 2010. Assume that all equipment upgrades are made immediately at the start of 2008, rather than phased in over the years such that reductions are effective immediately.
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Class 17

Topic: Assessing & Ranking Firm ESG Performance – Part I

Content: Today’s assignment drives home some of the fundamental issues surrounding the measurement and comparison of firm ESG performance. Assessing corporate environmental performance, as this assignment asks you to do, is simpler than assessing corporate sustainability performance or ESG but it still is a very complex undertaking. It also is essential. Unless we know what makes for good environmental (or ESG) performance and how to measure it, efforts to make businesses more sustainable can be misguided, and inquiries into the link between firm environmental and financial performance are on shaky grounds. In today’s session, we will have a subset of teams present their environmental performance assessment.

Readings

- CSR Needs CPR: Corporate Sustainability and Politics. Lyon, T. et al. 2018 *California Management Review* 60(4): 5-24. (Revisit this article for its mention on measuring CSR)

Due for all (on Monday, March 27 at 9:00 AM): Firm Environmental Performance Assessment. For more detailed instructions, see the Assignment Section in this syllabus.

Class 18

Topic: Assessing & Ranking Firm ESG Performance – Part II

Content: We will continue our discussion on ESG ratings and rankings, the industry that has emerged around it, and where it might head in the future.

Readings

TBA

Class 19

Topic: Circular Economy & Byproduct Strategies

Content: The notion of a circular economy emerged from industrial ecology, a field that uses the circular functioning of natural ecosystems as an analogy for making industrial processes circular. Today, we will analyze how one company used industrial symbiosis (or by-product strategy; BPS) to close the loop for one of its operation's waste products. The Cook Composites case allows us to assess different waste management alternatives and highlights the need for a comprehensive analysis of the environmental implications of by-product strategies.

Readings:

- Cook Composites and Polymers Co. (*in case package*)

Due for all: Case Brief 3– Cook Composites and Polymers Co (CCP). Submit a doc with a brief answer to the questions 1 & 2 as well as a spreadsheet showing your calculations and answers for questions 3 and 4.

CCP faces three options for addressing its rinse styrene waste stream: (a) Continue with business-as-usual and send rinse styrene to cement kilns, (b) sell its rinse styrene on a waste exchange, and (c) proceed with developing the concrete coating that uses its rinse styrene (BPS).

1. What arguments should Mike Gromacki consider when deciding which of the three options to pursue, and what are the pros and cons associated with each option?
 2. Which option should Mike ultimately recommend to management, and why?
 3. Compared to business-as-usual, what are the financial implications for CCP of selling its rinse styrene to a waste exchange, and what the implications of producing the concrete coating by-product (BPS)? In addition, also identify the optimal amount (from a financial perspective) of styrene use for the three different scenarios. You may create your own spreadsheet or use the posted spreadsheet to calculate expected profits for each of the options. (For now, ignore the \$3 Mio needed for R&D for bringing BPS online).
 4. What is the environmental impact (relative to business as usual) if CCP implements BPS? Consider just the impact on CO₂ emissions. From case exhibit 9, you can calculate that diverting 1 pound of styrene from cement kiln disposal to reuse in concrete coating increases the kiln's emissions by 1.2 pounds CO₂. Producing concrete coating with 1 pound of rinse styrene emits 1.9 fewer pounds of CO₂ than conventional production of the same amount of concrete coating. Producing one pound of styrene results in 2.5 pounds CO₂ emissions. You can use the posted spreadsheet for your calculations.
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Class 20

Topic: Circular economy & byproduct strategies: Eco industrial parks

Content: Eco-industrial parks (EIPs) are the quintessential manifestation of a circular economy approach. While EIPs can bring a number of benefits to the communities in which they reside, industry has seen various success (and often failures) establishing EIPs. In fact, few fully developed EIPs exist today. Today's analysis briefs will analyze the different forms and successes/failures of today's EIPs, with the goal of identifying the KSF for EIPs.

Readings:

- Eco-Industrial Parks. The case for Private Planning. Desrochers, P. RS-00-1: 2000 PERC research Study. While this is a slightly older article it lends itself nicely for developing some background knowledge on EIPs.

Due for select students: Analysis Brief 4 – Circular economy & eco-industrial parks

Class 21

Topic: Circular Economy & Cradle-to-Cradle Design - Herman Miller & Emma Footwear cases

Content: We will use the case “Cradle-to-Cradle Design at Herman Miller” to study an early application of the C2C concept in Herman Miller, an office furniture maker. The second case, “Emma Safety Footwear”, allows us to analyze a C2C example in a more recent setting, and to contrast the two settings and approaches.

Readings:

- Cradle-to-Cradle Design at Herman Miller: Moving Toward Environmental Sustainability (in case package)
- Emma Safety Footwear A+B: Designing a circular shoe

Due for all: Case Brief 4 - Cradle-to-Cradle Design at Herman Miller & Emma Safety Footwear. Submit brief answers to the following case questions:

1. What arguments speak for, and what arguments against, Herman Miller using TPU instead of PVC in the Mirra Chair arm pad?
 2. As CEO of Herman Miller, what would be your final decision, and why?
 3. What are the similarities and what the differences between C2C at Herman Miller versus Emma Footwear?
 4. Will Herman Miller capture value from the DfE/C2C initiative? If so, how? And will Emma Footwear capture value from C2C? If so, how?
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Class 22

Topic: Circular Economy & Cradle-to-Cradle Design: Emma Footwear & Loop Case

Content: We will wrap up the circular economy segment by finishing up the Emma Footwear case and then looking at Loop. Loop uses an innovative circular business model that tries to shift from “doing less bad” to solving sustainability issues at a deeper level by disrupting current consumption patterns. Note: Read the case, though no case brief is due

Readings:

- Loop: Eliminating single-use plastic through reusable packaging and the circular economy. (in case package)
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Class 23

Topic: “Let’s continue this discussion in another class”- class

Content: We will use today’s class to tie up some loose ends that inevitably develop throughout the semester. Think of it as a buffer class of sorts. If against all odds, there are neither loose ends nor current events that merit discussing, we will use this class to experience how our own decision making failures contribute to the sustainability challenges we face today. (Spoiler alert: We have met the enemy and it is us.)

Readings:

- TBD
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Class 24

Topic: Speaker – Tim DeBruin (Principal Consultant, Corporate Sustainability and Climate Change, ERM; formerly Sn. Sustainability Manager at Amcor)

Content: We will have Tim DeBruin visit class to share his experiences as sustainability consultant at [ERM](#) (a pure play sustainability consultancy) and former Senior Sustainability Manager at [Amcor](#) (a global packaging company. Lots of plastic – a huge sustainability challenge!).

Readings:

- TBD

Class 25

Topic: The people part of sustainability (part I): Second Chance Companies

Content: In today's session, and the next one, we study chance companies (aka fair chance companies). Hot Chicken Takeover (case study next class), [Cascade Engineering](#) in MI, [Greystone Bakery](#) in NY, [Nehemiah Manufacturing](#) in Ohio, and [Televerde](#) in AZ are all examples of firms with second chance HR programs. Today's analysis briefs will analyze the various approaches and identify the key success factors for second chance firms and their programs to succeed.

Readings:

- The Company of Second Chances. Spear, A. 2020. Wall Street Journal
- [Companies can expand their talent pool by giving ex-convicts a second chance.](#) Fitzgerald, J. 2022. Working Knowledge, Harvard Business School
- [Just Facts: As Many Americans Have Criminal Records as College Diplomas.](#) Friedman, M. 2015. Brennan Center for Justice
- [7 Reasons Why You Should Run a Pre-Employment Background Check.](#) Collatz, A. 2018. TransUnion.
- [What Employers Need to Know About Successful Second Chance Hiring.](#) Garcia, C. 2019. SHRM Blog
- Browse [Second Chance Business Coalition](#) (founded in April 2021)

Due for select students: Analysis Brief 5 – Second Chance Companies

Class 26

Topic: Second Chance Companies – *Hot Chicken Takeover Case*

Content: We will use the Hot Chicken Takeover case for an in-depth examination of the potential and limits for fair chance employment models to make a positive societal impact.

Readings:

- Hot Chicken Takeover (in case package)

Due for all: Case Brief 5– Hot Chicken Takeover (HCT). Submit brief answers to the case question below.

1. Joe sees HCT as a means to an end. To have desired impact, Joe needs to scale HTC. How many “fair chance” HCT stores that are modeled after the original store do you expect to see in 10 years, and why?
 2. What are the largest hurdles to scaling HCT? Can they be addressed, and if so, how?
 3. Would you advise the CEO of subway to implement a fair chance hiring program? Why/Why not?
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Class 27

Topic: Differentiation Strategy & Sustainability

Content: We will study the feasibility of environmental differentiation strategies. Under what conditions might a firm be able to leverage its sustainability performance to pursue a differentiation strategy and demand a price premium for its products? We will contrast the Patagonia case to the StarKist case to explore this question.

Readings:

- Patagonia — focus on the organic cotton T-shirt decision described in the appendix of the case (*in case package*)
- StarKist (*in case package*)
- **Optional:** Strategic Positioning: Cost advantage and Benefit Advantage (Besanko et al., Chapter 11) (This reading is intended for students without prior knowledge in cost leadership versus differentiating strategy.)
- **Optional:** Doing Well by Doing Good, Uniquely: Materiality and the Market Value of Unique CSR Strategies (Nardi et al., 2022. Strategy Science). This paper might be interesting to students with an interest in business strategy.

Due for all: Case Brief 6 – Starkist & Patagonia Cases. Submit brief answers to the case question below.

- Do you anticipate StarKist to derive financial (economic) benefits from its decision to implement a no-encirclement decision? Why/why not?
 - Compare Patagonia’s environmental differentiation with its organic cotton T-shirts versus Starkist’s environmental differentiation with its dolphin safe tuna to identify the general conditions under which a company may be able to successfully pursue an environmental differentiation strategy
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Class 28

Topic: Wrap-Up

Content: Wrap up! The Review Brief that is due today asks you to reflect on the knowledge and skills that you have taken away from this class. It allows you to recognize how the various class sessions fit together to foster an overall understanding of the challenges and solution in business sustainability.

Readings:

- None

Due for all: Review Brief. Refer to this syllabus’ Assignment Section for instructions.