



Nicholas School of the Environment
ENV 811, Introduction to Business and the Environment
Fall, 2020
Course Syllabus

Course Instructors:

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Course Description

This two-part-course introduces students to 1) systems thinking in a sustainable business context and business motivations for engaging in sustainable practice and 2) creating value with environmental and social corporate governance, business organization and management practices. You will engage in real-world situations and learn practical skills. In the first half of the course you will apply systems analysis tools to consider the global context for sustainability and to evaluate business value chains. You will examine the ways in which businesses operate within an environmental, social and economic context to address global problems such as climate change, degradation of water, land and air, overconsumption, and the unsustainable use of natural resources. You will then probe stakeholder, regulatory and financial drivers for business sustainability.

In the second half of the course you will evaluate the theory and engage in the practice of corporate, environmental and social governance (ESG) by taking on the role of Manager of Corporate Social Responsibility and Sustainability for a local startup, Tyrata, Inc. You will gain fluency in the core functions of business—governance, finance, operations, and marketing—while also learning about value generation and the pros and cons of ESG implementation. Using the lessons learned in class, you will advise the CEO of Tyrata, Inc. on how best to deploy a social responsibility and sustainability

program in Tyrata. You will build your capacity for leadership, teamwork and use the tools of business to advance environmental sustainability goals.

Active learning is a core value of our course. We will study critical issues in business and the environment through case study case analysis, in-class and on-line discussions and applied team projects. We will bring current business challenges into the classroom. Because we all learn from each other, exceptional communication is a core value. Our goal is to create a community in which we can engage in lively and respectful discussions with each other. Communication skills will be honed as you complete written assignments, such as focused e-mails and decision memos, and work with team mates to deliver presentations on assigned topics.

Our overall goal is for you to develop a holistic view of business interactions with the environment so that you can be prepared to develop managerially, financially and technically sustainable solutions to problems in private sector, corporate, NGO, and public agency settings.

What does Deb bring to this course?

I bring extensive experience working on sustainability issues from both public and private sector perspectives. Before obtaining a Ph.D. in public policy at the University of North Carolina Chapel Hill, I worked for Kraft Foods and Eastman Kodak in Corporate Environmental Affairs and for the USEPA and Massachusetts Department of Environmental Protection in solid and hazardous waste policy. I was trained as a chemical engineer at Northwestern University and also hold a Masters of Public Policy from Harvard Kennedy School. I am passionate about using private sector resources to make a difference in the health of people and the Earth. I've used that passion to become a scholar of strategy and environmental leadership and to work with the United Nations Global Compact on issues such as corporate engagement in climate change policy, carbon pricing leadership and planetary health. My current passion is helping private sector organizations to better apply environmental, social, and governance (ESG) data in service of critical social and planetary sustainability goals.

What does Jesko bring to this course?

I have spent my career bridging the gap between academic innovation and corporate implementation, working at non-profits, venture-backed startups and for large corporations as manager, vice president, president and CEO. I teach entrepreneurial skills and enjoy working with students and innovators to enhance their careers and commercialize new technologies that support sustainability and create a positive impact on society. To that end, my passion lies with new startups that have the potential to change the world. I was a co-founder of Cronos Integrated Microsystems (acquired by JDS Uniphase) and CEO and founder of Nextreme Thermal Solutions (acquired by Laird Technologies). My most recent venture can be found at www.tyrata.com.

What does Erika bring to this course?

I have 15 years of experience in student affairs and higher education administration at the Nicholas School of the Environment. I have served as college advisor for more than 15 Duke undergraduates, and the staff advisor for the Black and Latinx Club at NSOE. I sit on several academic and school committees to include but not limited to the Registrar's Roundtable, the DE&I Actionators, the management team within Student Services and a staff contributor on the NSOE Education Committee. I bring more than 10 years of management experience and hold a master's degree in management with a focus in project management. I enjoy developing employees and teams through coaching, training, goal setting, creating leadership opportunities and engagement strategies. This is my third year leading the Everest Simulation in ENVIRON 811 (Business and Environment). I look forward to seeing how this year's cohort approaches this exercise and another year of lively discussion during the debrief discussion.

What does Parker bring to this course?

I bring operational and organizational change management expertise as well as a recent student perspective. Prior to returning to Duke for her MEM/MBA Dual-Degree, I worked in global pharmaceutical operations, where I optimized processes in various parts of the business including supply chain, manufacturing, quality, and business development. From my cross-functional work I am able to lend a broad perspective on how various stakeholders within, and beyond, and organization react to change and how critical relationship management is accelerating sustainability objectives. I also contribute practical project management experience helping to distill sustainability objectives from the strategic level into specific actions. Recently, I worked for One Better Ventures to understand more on the impact investing world, with WeWork and UA on their Supply Chain Sustainability priorities, and co-founded my own company Carbon Insights.

Statement on Diversity and Inclusion

We work together to create a course environment in which students from diverse backgrounds are comfortable in sharing their knowledge, experience, and views, and benefit equally from what we are learning. We believe that a diverse community of students adds significant value to our learning experience. We intend to promote a classroom culture in which everyone is heard and is respectful of diversity: gender identity, age, race, disability, political perspective, socioeconomic status, ethnicity, nationality, culture and religion. We welcome and appreciate your suggestions on how to improve the effectiveness of our course for you and for others.

Land Acknowledgement

We acknowledge that the land Duke University occupies is land that belongs to the Shakori, and Catawba people. We recognize the Coharie, Eastern Band of Cherokee Indians, Haliwa-Saponi, Lumbee, Meherrin, Occaneechi Band of the Saponi, Sappony, and Waccamaw Siouan peoples whose lands include what is known today as North Carolina. We recognize those peoples for whom these were ancestral lands as well as the many Indigenous people who live and work in this region today.

A note on the format of the course

In Fall 2020, due to the Covid-19 pandemic, we will adopt a hybrid course format and follow rules for safety, such as testing, symptom monitoring, social distancing and masking. Students may choose to attend class in-person or online. Much of our work is done in groups, and we will mix up these groups occasionally, so that all students can get to know each other. We will also host “after class” discussion forums on Sakai so that our conversations can continue.

We are committed to creating an active and inclusive classroom community in which we can learn from each other. We also recognize, that, if circumstances change, we may need to transition to a fully online format.

Course Materials

Asynchronous Lectures, Videos, Readings and Cases are provided electronically on Sakai and in the Coursepack, which you will purchase. You will also purchase a simulation.

Course Requirements

Part 1: (Gallagher)

- Presentation: Student teams will deliver a presentation using systems analysis to describe a company value chain, highlighting sustainability challenges. (10%)
- Case Analysis: Student teams will apply the Case Analysis framework to consider issues in Mining in Madagascar. (5%)
- Memo: You will write a decision memo recommending a course of action to decision makers at First Solar. (10%)
- Memo: You will write a decision memo recommending a course of action to decision makers at Generation Investment. (10%)
- Presentation: Student teams will deliver a presentation on “sustainability as strategy”. (10%)
- Participation: Students will participate in on-line discussions (5%)

Part 2: (von Windheim)

- Writeups: 1) Memo to Tyrata CEO: Vision for CSRS at Tyrata (5%); 2) Tyrata Case writeup (15%)
- Class Presentations: 1) Value Generation with ESG (5%); 2) Case Presentation (5%).
- Simulations: 1) Leadership and Team Simulation: Everest (2.5%); 2) Organizational Design (2.5%).
- Spreadsheet Models: 1) Modeling the bottom line of CSRS implementation at Tyrata (5%); 2) Modeling the value of extending tire life (5%).
- Participation: Students will participate in on-line discussions (5%)

Please submit your assignments via the course Sakai site in the Assignments Folder.

You should label your individual assignments as follows:

Last Name_First Name_Assignment Title_Semester.

As in “Jursak, James, Clorox Memo_Fall2020”

And your group assignments as follows:

Team Name_Assignment Title_Semester

As in “Amazon, Value Chain Presentation_Fall2020”

Grades in this course will be based on:

| Requirement | Percent of Grade | Due Date |
|--|-------------------------|-----------------|
| Class and discussion board participation | 10% | throughout |
| Team Value Chain Presentation | 10% | 9/2 |
| Team Case Analysis: Mining in Madagascar | 5% | 9/9 |
| Decision Memo: First Solar | 5% | 9/16 |
| Decision Memo: Generation Investment | 15% | 9/28 |
| Team Sustainability as Strategy Presentation | 15% | 9/30 |
| Memo: Vision for CSRS at Tyrata | 5% | 10/11 |
| Spreadsheet Model: Bottom line of CSRS | 5% | 10/18 |
| Simulation: Everest | 2.5% | 10/25 |
| Presentation: Value Generation with ESG | 5% | 10/02 |
| Simulation: Organizational Design | 2.5% | 11/08 |
| Spreadsheet Model: Tire Life | 5% | 11/15 |
| Case Presentation | 5% | 11/18 |
| Case Writeup | 15% | 11/20 |

Coursepack link: <https://hbsp.harvard.edu/import/742242>

Course Communication

We will post announcements on the course Sakai site on a regular basis. Students should e-mail us with questions you may have about lectures, videos, readings or assignments. We will work hard to respond within 48 hours.

A note on late assignments

Please let us know in advance, if you will not be able to complete an assignment on time, and we can negotiate an alternative timeframe. If we don't hear from you, the assignment will be considered late and receive a lower grade, one-half grade per 24-hour day late.

Academic Integrity: All activities of Nicholas School students, including those in this course, are governed by the Duke Community Standard.

TO UPHOLD THE DUKE COMMUNITY STANDARD:

- I will not lie, cheat, or steal in my academic endeavors;
 - I will conduct myself responsibly in all my endeavors; and
 - I will act if the Standard is compromised.
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Detailed Course Schedule

| DATE | TOPIC | PREPARATION/ASSIGNMENTS |
|---------------|---|--|
| Part 1 | | |
| August 17 | Introduction to Course, Learning through Cases | <ul style="list-style-type: none"> • The Comprehensive Case for Sustainability • The Top 10 Sustainability Stories of 2019 • Sustainability Lessons from the Front Lines • Is Sustainability Undergoing a Pandemic Pause? https://www.greenbiz.com/article/sustainability-undergoing-pandemic-pause <p>Watch:</p> <ul style="list-style-type: none"> • Learning With Cases: An Interactive Study Guide <p>Assignments:</p> <ul style="list-style-type: none"> • Familiarize yourself with syllabus, course Sakai site • Purchase Course Pack • Please visit the Discussion Forum on Sakai after class to continue the conversation |
| August 19 | Strategy and Systems, Communicating: Memos, E-mails, Presentations, Team Introductions. Discussion and In-Class Exercise | <p>Read</p> <ul style="list-style-type: none"> • The Dawn of Systems Leadership • Baumgartner and Rauter, 2017. Strategic Perspectives of Sustainability • Memo Writing Supplemental Resources • O' Hare, M. (2004). Rhetoric: Memo to My Students. <u>Journal of Policy Analysis and Management</u>, 23:2, pp. 365 – 375. • How to write e-mails that pass the 10-second test <p>Watch:</p> <ul style="list-style-type: none"> • Video 1: How to Write a Memo [Nicki Cagle, Director of the Writing Studio] <p>In-class assignment:</p> <ul style="list-style-type: none"> • The 10-second e-mail <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |

| DATE | TOPIC | PREPARATION/ASSIGNMENTS |
|---------------|---|--|
| Part 1 | | |
| August 24 | Sketching Systems for Change 1 (Business Level), Discussion and In-Class Exercise | <p>Read</p> <ul style="list-style-type: none"> • Whole Systems Design: Introduction to Lifecycle Thinking • Introduction to Systems Thinking • Guidelines for Drawing Causal Loop Diagrams <p>Watch:</p> <ul style="list-style-type: none"> • Got a Wicked Problem? First Tell Me How to Make Toast (Ted Talk) <p>In-Class Assignment</p> <ul style="list-style-type: none"> • Introduction to Team Assignment, Sketching a Value Chain <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |
| August 26 | Sketching Systems for Change 2 (Planetary Level), Discussion and In-Class Exercise | <p>Read:</p> <ul style="list-style-type: none"> • Steward, T. 2012 A Brief Introduction to the Multi-Level Perspective (MLP) <p>Watch:</p> <ul style="list-style-type: none"> • What is MLP? Multi-Level Perspective https://vimeo.com/54338623 • Sally Uren on System Change for Sustainability (GreenBiz 2019) https://www.youtube.com/watch?v=70zdK0eb7mU <p>In-Class Assignment:</p> <ul style="list-style-type: none"> • Multi-Level Perspective applied to your organization <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |

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|---------------|---|--|
| Part 1 | | |
| August 31 | Case Discussion: Eileen Fisher, Team Work Time (as possible) | <p>Read:</p> <ul style="list-style-type: none"> • Building a Sustainable Company: The Story of Eileen Fisher <p>Consider:</p> <ul style="list-style-type: none"> • What measures did Eileen Fisher take to reduce its environmental footprint? Did the company go far enough? • How did the company promote sustainability? • Consider the fashion industry sector from a system perspective. What are the benefits of upcycling? How can Eileen Fisher promote systems change? <p>Assignment Due (ungraded, but checked):</p> <ul style="list-style-type: none"> • Complete the Learning Through Cases Analysis for Eileen Fisher (individually) <p>In-Class Assignment:</p> <ul style="list-style-type: none"> • Work on Team Presentations (as time permits) <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |
| September 2 | Value Chain Analysis Presentations | Assignment Due: Team Presentations |

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| Part 1 | | |
| September 7 | Stakeholder Activism, Introduction to Team presentation, Pecha Kucha, Discussion and In-Class Exercise | <ul style="list-style-type: none"> • Engaging with Stakeholders: 12 Pitfalls to Avoid on the Path to Managing Reputational Risks • Matten, D., & Crane, A. (2005). Corporate citizenship: Toward an extended theoretical conceptualization. <i>Academy of Management review</i>, 30(1), 166-179. • Post, J. E., Preston, L. E., & Sachs, S. (2002). Managing the extended enterprise: The new stakeholder view. <i>California management review</i>, 45(1), 6-28. • Kozinets, Robert V. (2014). Social Brand Engagement: A New Idea. <i>Engagement</i>, 6(2): 8-15 • Kotler, Philip & Sarkar, Christian. (2017), "Finally Brand Activism!" <i>The Marketing Journal</i>. http://www.marketingjournal.org/finally-brand-activism-philip-kotler-and-christian-sarkar/ • Guidelines for Pecha Kucha <p>Watch:</p> <ul style="list-style-type: none"> • Pecha Kucha on Pecha Kucha https://www.youtube.com/watch?v=L31SwpN1dAc <p>In-Class Assignment:</p> <ul style="list-style-type: none"> • Brands Taking Stands (live case) <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |

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| Part 1 | | |
| September 9 | Case: Mining in Madagascar, Discussion | <p>Read:</p> <ul style="list-style-type: none"> • Mining in Madagascar (case) <p>Consider these questions as you read the case:</p> <ul style="list-style-type: none"> • What are the positions of the representatives of the three main stakeholder groups regarding the Ambatovy project? • How would you advise Paul to proceed to achieve a consensus approach going forward? <p>Assignment Due: Case Analysis Framework for Mining in Madagascar (teams)</p> <p>Assignment: Please visit the Discussion Forum on Sakai after class to continue the conversation</p> |
| September 14 | Government regulation, Discussion and In-Class Exercise | <p>Read:</p> <ul style="list-style-type: none"> • Profiting from Environmental Regulatory Uncertainty: Integrated Strategies for Competitive Advantage <p>Watch:</p> <p>In-class Assignment:</p> <ul style="list-style-type: none"> • Response to new policy or regulation (live case) <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |

| DATE | TOPIC | PREPARATION/ASSIGNMENTS |
|---------------|---|---|
| Part 1 | | |
| September 16 | Case: First Solar, Discussion | <p>Read</p> <ul style="list-style-type: none"> • First Solar (Case) <p>Consider these questions as you read the case:</p> <ul style="list-style-type: none"> • How important is recycling to the solar energy industry? What are the regulatory incentives for entering the solar panel recycling market? • What is the nature of the solar panel recycling market? What are the opportunities and threats? • What is First Solar's business plan to recycle solar panel modules? <p>Assignment:</p> <ul style="list-style-type: none"> • Decision Memo recommending to Alex Heard and Suhhwant Raju whether or not they should pursue solar module recycling as a profit center. • Please visit the Discussion Forum on Sakai after class to continue the conversation |
| September 21 | Markets and Finance Discussion and In-Class Work on Team Presentations | <p>Read:</p> <ul style="list-style-type: none"> • Sustainability a CFO Can Love <p>Watch:</p> <p>In-Class Assignment:</p> <ul style="list-style-type: none"> • Work on Team Presentations <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |

| DATE | TOPIC | PREPARATION/ASSIGNMENTS |
|---------------|---|--|
| Part 1 | | |
| September 23 | Case: Generation Investment Management, Discussion | <p>Read:</p> <ul style="list-style-type: none"> • Generation Investment Management (Case) <p>Consider these questions as you read the case and prepare the e-mail and memo:</p> <ul style="list-style-type: none"> • What are the strengths and weaknesses of Generation’s philosophy and approach? What do you like about what they do? What do you dislike? • Why hasn’t Generation’s investment approach been adopted more widely? • What more could Generation do to push the world toward sustainable capitalism? <p>Assignment:</p> <ul style="list-style-type: none"> • Decision Memo: recommending to Miguel Nogales and Mark Ferguson whether or not Generation should remove John Deere from its focus list. • Please visit the Discussion Forum on Sakai after class to continue the conversation |
| September 28 | Seafood Slavery Risk: Guest Lecture by Sara McDonald, Ph. D., Monterrey Bay Aquarium | <p>Skim:</p> <ul style="list-style-type: none"> • Ending child labour, forced labour and human trafficking in global supply chains (Alliance 8.7, 2019). <p>Watch:</p> <ul style="list-style-type: none"> • Seafood Slavery Risk Tool <p>Assignment:</p> <ul style="list-style-type: none"> • Please visit the Discussion Forum on Sakai after class to continue the conversation |
| September 30 | Sustainability as Strategy Presentations | <p>Assignment:</p> <ul style="list-style-type: none"> • Team Presentations |

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|---------------|--|---|
| Part 2 | | |
| October 5 | Section Introduction | <ul style="list-style-type: none"> • Read: Strategy & Society (HBP) • Read: Sustainability is an Innovation Problem (public) |
| October 7 | Leadership | <ul style="list-style-type: none"> • Read: Becoming the Boss (HBP) • Read: What You Don't Know About Making Decisions (HBP) • Assignment: (A1) 1p assignment "Memo to Tyrata CEO: Vision for CSRS at Tyrata" |
| October 12 | Corporate Governance | <ul style="list-style-type: none"> • Read: Top Boards do These 4 Things Differently (public) |
| October 19 | Financial Reporting | <ul style="list-style-type: none"> • Read: A Conceptual Framework for Financial Reporting (HBP) • Review: Business Builder 2 3 & 4_Financial Statement Basics (public) • Assignment: (A2) Spreadsheet "Modeling CSRS at Tyrata" |
| October 21 | WWF Case Study | <ul style="list-style-type: none"> • Read: WWF International - Annual Review 2017 (public) • Review: Everest V3 - Leadership and Team Simulation Overview (public) |
| October 26 | Value Proposition | <ul style="list-style-type: none"> • Read: Customer Value Proposition in Business Markets (HBP) |
| October 28 | Environmental & Social Governance | <ul style="list-style-type: none"> • Read: PepsiCo-Becoming a Better Corporate Citizen (HBP) • Read: 2020 Sustainability - Decision Time (public) • Assignment: (A3) Everest Simulation |
| October 30 | Everest Debrief | |
| November 2 | The Value Proposition for ESG | <ul style="list-style-type: none"> • Read: ESG - A view from the top (public) • Read: The value proposition for corporate ESG issues (public) • Assignment: (A4) Presentation "Value Generation with ESG" |
| November 4 | Organizational Design | <ul style="list-style-type: none"> • Read: Scaling a Startup (HBP) • Read: The 7-S Model (HBP) • Review: Organizational Design Simulation Overview (public) • Assignment: (A5) Organizational Design Simulation |
| November 9 | Org Design Simulation Debrief | |

| DATE | MODULE | PREPARATION/ASSIGNMENTS /ASSIGNMENTS |
|---------------|--|--|
| Part 2 | | |
| November 11 | Marketing Sustainability | <ul style="list-style-type: none"> • Read: Sustainability as a Marketing Tool (Duke Libraries) • Assignment: (A6) Spreadsheet "Modeling The Value of Extending Tire Life" |
| November 16 | Monitoring Success | <ul style="list-style-type: none"> • Read: Cabot Creamery (HBP) • Review: 2019-ESG-Reporting-Guide_NASDAQ (public) |
| November 18 | Capstone ESG Case Presentations | <ul style="list-style-type: none"> • Assignment: (A7) Case Presentation • Assignment: (A8) Case Writeup |
| November 23 | Last Class | Wrap Up, Course Evaluation and Celebration – Deb |