

BUSML 4385

Building a Sustainable Supply Chain

Semester:	Spring 2023	Classroom:	Schoenbaum Hall 209	Zoom Meeting ID:	614 292 0568; PW: buckeyes
				Direct link:	go.osu.edu/zoom_with_dr_castillo
Instructor:	Dr. Vince Castillo	E-mail:	Castillo.230@osu.edu		
Student Hours:	<ul style="list-style-type: none"> • Recurring on Thursdays from 10:00a-11:00a via Zoom • In-person appointment requests are also welcome 		Office:	Fisher Hall 532	
Course Content Website:	http://carmen.osu.edu/				

Class Meeting Times:

Section	Days	Time	Start	End
4863	Mon/Wed	2:20p-3:40p	Jan 9, 2023	Feb 24, 2023

DISCLAIMER: I reserve the right to modify any policy of this course including, but not limited to, the schedule, assignments, and/or grading scheme. However, I will always explain my reasoning and clearly communicate any changes verbally and in written form. I will never impose changes arbitrarily or capriciously.

Course Description:

When you think about the concepts of “Sustainability” and “Supply Chain Management”, what comes to mind? What about “Corporate Social Responsibility” or “Triple Bottom Line”? My guess is that you’ve probably heard these terms in the popular press or in other courses. Perhaps they convey mental images of climate change, green technology, or philanthropy. Not a bad start, but we’re going to take it a step further and discuss not only what sustainable supply chain management (SSCM) is and why it’s critical, but we’ll also examine why some companies *don’t* pursue SSCM. We’ll then study how companies use SSCM *strategically* to compete in the marketplace and learn some of the best practices at the *operational* level for sustainability in procurement, manufacturing, operations, and logistics activities. By the end of this course, you should be able to articulate what a sustainable supply chain strategy consists of, why it is important, and provide exemplars of SSCM in practice.

Required Texts/Materials:

There is no textbook for you to purchase, but there are assigned reading materials sourced from a variety of outlets including academic journals and the popular press. These materials, along with the course schedule, are posted on Carmen. In the schedule, you’ll find that each session has assigned readings; these should be completed prior to that session. We will do a variety of in-class exercises to enhance your understanding of the main points of these readings.

Evaluation Criteria:

Graded Components	% of Total	Type
Group Case Studies (2 @ 27.5% ea.)	55%	C 🚫
Exams (2 @ 22.5% ea.)	45%	N ⬆️

(See remaining pages for Details/Due dates)

Requirements for each form of graded component.
Failing to follow these will represent academic misconduct. See below.

Independent Work [N ⬆️]: Strictly non-collaborative, original individual work. You may discuss this assignment with your instructor only. Discussions with other individuals, either in person or electronically, are strictly prohibited.

Collaboration Required [C 🚫]: An explicit expectation for collaboration among students either in class or outside of class (i.e. group work).

Collaboration Optional [O 🚫]: Students are permitted, but not required, to discuss the assignment or ideas with each other. However, all submitted work must be one’s original and individual creation.

Academic Conduct:

If a student is suspected of, or reported to have committed, academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct (COAM). If you have questions about the above policy or what constitutes academic misconduct in this course, please contact me. See OSU Prohibited Conduct – [Section 3335-23-04\(A\)](#)

University Policies,
Services and Resources
(go.osu.edu/UPolicies)



Fisher Undergraduate
Handbook and QuickLinks
(www.bsbalinks.com)



Fisher Navigator
Resource Portal
(www.nav-1.com)



Grade Components

All assignments should be submitted via Carmen. Grades will be posted on Carmen as soon as I finish grading them (usually within a week). I will gladly review any grades I give during student hours or via appointment. Late assignments receive a 10% deduction per day after the original due date. The following sections describe the areas in which students can earn points towards their final grade as well as the weights for each of those areas.

Group Case Studies (2 @ 25% content + 2.5% peer evaluations each; 55% total):

Two case studies will be conducted in this course. The first is based on an in-class simulation we'll conduct during the third week of the course. The [Fishbanks Renewable Resource Management Simulation](#) is a team-based simulation where you'll partner with 1-2 other students to compete against (or work with?) other teams. Two group deliverables are required for this simulation: before the class session when we do the simulation, each group will need to submit a strategy write-up; after the class session, each group will submit a summary and reflection of their performance. The second group case study is an analysis of supply chain carbon emissions. This will consist of analyzing anonymized data from a real firm with the goal of estimating their carbon footprint throughout their supply chain and recommending improvements. Both case studies will also require peer evaluations, where you'll grade your partners on their contributions to the team. In the event that the team signals to me one member's contributions were not productive or even detrimental through these evaluations, that team member's grade can be adversely affected by losing the peer review points of the assignment grade. More detailed guidance on this and broader instructions for each case study will be posted to Carmen later in the semester.

A Note on the Use of AI-Based Technologies in this Course

Artificial intelligence (AI)-based tools continue to proliferate. One such set of tools are apps that use a type of AI (usually natural language processing and deep learning in combination with other methods) to help authors in the writing process. For instance, apps such as [OpenAI Playground](#) and [LEX](#) are browser-based word processors (think Google Sheets or MS Word Online) that incorporate an AI assistant to generate prompts that help you break through "writer's block". Another AI-based tool is [ChatGPT](#), a recently released chatbot capable of not only answering a plethora of questions about anything under the sun but can even provide specific examples of sustainable supply chain management in practice. While there are pros and cons to using these tools (which we'll discuss), I encourage you to explore their capabilities, especially for this course. More importantly, I would like to have an open dialogue about their usefulness. To that end, **I'll ask you to declare if you've used an AI-based writing assistant to develop your executive summaries for each case study.** I do not oppose their use, but you should be aware of their limitations first, because I will hold **you** accountable, **not the AI**, for instances of plagiarism, factual inaccuracy, poor grammar/composition, and the litany of other issues that come with using AI. If you have any concerns, please don't hesitate to contact me to discuss further.

Exams (2 @ 22.5% each; 45% total):

We will have two in-class exams in this course, one midway through and a second at the end of the course. I will provide more details and post a review before each exam date. The second exam is not cumulative per se, but there may be carry-over in that the content we discuss early in the semester lays the foundation for understanding content discussed later in the semester. If you need special accommodations for an exam due to COVID or another unexpected event, please contact me as soon as possible to discuss. I will handle these requests on a case-by-case basis. If you miss an exam without notifying me and cannot provide a statement of support from the University or do not have an intermittent flex plan through [SLDS](#), I will consider this an unexcused absence that results in a grade of 0%. See the policies in the two sections on Accommodations below for more information.

Grading Scale:

The following table is used to assign final course grades. I do not round grades, so 89.50 is a B+.

Letter (Points)	A (4.0)	A- (3.7)	B+ (3.3)	B (3.0)	B- (2.7)	C+ (2.3)	C (2.0)	C- (1.7)	D+ (1.3)	D (1.0)	E (0.0)
Range	100% - 93%	93% - 90%	90% - 87%	87% - 83%	83% - 80%	80% - 77%	77% - 73%	73% - 70%	70% - 67%	67% - 60%	60% - 0%

Note: Above percentages are % of overall points earned

Attendance / Participation Expectations:

I do not monitor attendance nor does your grade include a participation component. However, you should plan on attending each session, since there are only two per week and the course is fast paced. That said, there are two sessions where your **attendance is required** (see scheduled below). Missing these will ensure you are unable to participate in the first group case study and thus earn a zero on a significant portion of your course grade.

I understand that extenuating circumstances occasionally arise which may affect your ability to be in class. Courtesy emails are appreciated in such cases, but not necessary. However, I will still hold you accountable for the content covered in those sessions, so it is imperative that you stay on pace with the reading assignments even if you must miss a session. The first person to email me the phrase, "O-H" in the subject line will get two bonus points on their first exam.

In rare but extreme situations, I may have to enforce University rule [3335-8-33](#), which states that any student may be disenrolled from a course for failure to attend by the first Friday of the term, or by the 3rd instructional day of the term, or by the second class meeting, whichever occurs first.

Course-specific Copyright Policy:

Material provided by the instructor may not be re-posted anywhere without the explicit permission of instructor. See University Copyright Policy.

Accommodations due to COVID-Related Absences and Additional Learning Accommodations:

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by [Student Life Disability Services](#).

If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I will request that you register with [Student Life Disability Services](#). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Mental Health Resiliency:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292--5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.

Course Schedule:

Disclaimer – In the event that extenuating circumstances arise necessitating a change to the course schedule, policies, or other content, I will clearly communicate those changes by explaining them in class and posting an announcement to Carmen.

	Monday	Wednesday
Date	9-Jan	11-Jan
Topic	Course Intro	Societal Challenges and the Need for Sustainable Development
Preparatory Reading or Assignment	N/A	>Hardin's Tragedy of the Commons (1968) >Brundtland Commission Report (1988) - p11-18 highlighted passages >Hodari (2019)
Date	16-Jan	18-Jan
Topic	No Class - MLK Day	The Business Case for (and against?) Sustainability
Preparatory Reading or Assignment	N/A	>Friedman (1970) >Drucker (1984) >Porter & Kramer (2011) >Trebilcock & Sheffi Interview (2017)
Date	23-Jan	25-Jan
Topic	Theories of Sustainable Supply Chain Management Introduction to Fishbanks IN-PERSON ATTENDANCE REQUIRED	Fishbanks Resource Management Simulation IN-PERSON ATTENDANCE REQUIRED
Preparatory Reading or Assignment	>Carter and Rogers (2008); highlighted passages only >Montabon et al (2016); highlighted passages only >Fishbanks Introduction Video	>Case Study 1 Part 1 due 25-Jan at Beginning of Class >Read Ostrom (2009) after the simulation >Case Study 1 Part 2 due 29-Jan by 5pm
Date	30-Jan	1-Feb
Topic	Exam #1	SSCM in Practice - Design & Measure
Preparatory Reading or Assignment	N/A	>RIT (2020) What is LCA? >Matthews et al (2018), Ch.4 >Introduce Case Study 2
Date	6-Feb	8-Feb
Topic	SSCM in Practice - Design & Measure	SSCM in Practice - Source
Preparatory Reading or Assignment	>Tso (2020) >US EPA (2021) Emissions Factors >US EPA (2021) Understanding GWPs	>Ostrom (2009) >Wieland and Handfield (2013) >Tabacek (2010) >Galarza (2020)
Date	13-Feb	15-Feb
Topic	SSCM in Practice - Make	SSCM in Practice - Deliver & Return
Preparatory Reading or Assignment	>Case Study 2 Check-in >USGBC (2017) What is LEED? >APICS (2014) Remanufacturing	>Sustainable Technology in Transportation (skim to get the gist of each of the four technologies) >Mollenkopf & Closs (2005)
Date	20-Feb	22-Feb
Topic	SSCM in Practice - Deliver & Return	Exam #2
Preparatory Reading or Assignment	>Guide and Van Wassenhove (2002) >Orts and Spigonardo (2017)	>Case Study 2 due 24-Feb by 5pm