Zhejiang University 2025 SDG Global Summer School Sustainable Production and Consumption

1. Overview

Sustainability has moved to the top of the agenda in business as consumers, governments, and firms seek to reduce environmental degradation and avoid natural resource scarcity. However, progress has been limited. A key reason for this sluggishness is that firms' managers and leaders often view environmental objectives and more orthodox objectives (e.g., profit) as opposed and prioritize the latter over the former. This course illustrates that this assumption is increasingly misplaced as new developments in management, technology, consumer sentiment, policy, and other fields enable win-win outcomes in ever more areas. Before this background, we offer a summer school course that empowers students to understand and apply newly emerging knowledge and so drive real change later in their careers.

Specifically, after attending this course, you will be able to

- Apply innovative solutions to sustainability challenges.
- Integrate sustainability into business strategies and operations.
- Design sustainable business models that create social, environmental, and economic value.
- Collaborate in teams to develop and present sustainability-focused projects.

To help you reach these learning objectives, we provide a diverse array of sessions that consider sustainable production and consumption systems from multiple angles and using different learning approaches. These sessions delivered by experts with significant academic and industrial experience working at the cutting edge of sustainability and management.

2. Faculty team

The faculty team of the course is introduced in the order of their sessions during the course.

Name	Biography
Wim Coreynen (Zhejiang University)	Dr. Coreynen is an Assistant Professor in the Department of Innovation, Entrepreneurship, and Strategy (IES) at Zhejiang University School of Management (ZJUSOM) in Hangzhou, China. He earned his PhD from the Faculty of Business and Economics (FBE) at the University of Antwerp (UA) in Belgium. He has held previous positions at Antwerp Management School (AMS) in Belgium and at the Free University of Amsterdam (VU Amsterdam), Utrecht University (UU), and the Jheronimus Academy of Data Science (JADS) in the Netherlands. Dr. Coreynen's research interests include innovation, particularly digital, service, and business model innovation, as well as entrepreneurship and intellectual property management. His work has been featured in esteemed journals such as *Research Policy, Technovation, Journal of Business Research, Journal of Cleaner Production,* and *Journal of Service Management.*

3. Course outline

No.	Day	Session	Class hours	Speaker
1	6.30	(Orientation)		/
2		Opening ceremony		/
3	7.1	Introduction	3	Wim Coreynen
4		"Digitalization", "greening", Technology upgrading and sustainable economic performance	3	TBC
5	7.2	Dual transition	3	TBC
6		Innovation and innovation management	3	Wim Coreynen
7	7.3	Circular economies	3	TBC
8		Business model innovation	3	TBC
9	7.4	Social entrepreneurship and rural revitalization (field trip to a neighboring town)	6	TBC
10				
	7.5	Free Day	/	
	7.6	Free Day	/	
11	7.7	Responsible business	3	TBC
12		Company visit	3	TBC
13	7.8	Visit to ZUMAA	3	TBC
14		Group work 1	3	Wim Coreynen
15	7.9	Sustainable operations management	3	TBC
16		Group work 2	3	Wim Coreynen
17	7.10	Handcrafted rubbings workshop	3	TBC
18		Sustainable production and consumption	3	TBC
19	7.11	Empirical and analytics methods for solving green business problems	3	TBC
20		Final presentation	3	Panel

3.1 "Digitalization", "Greening", Technology Upgrading and Sustainability

In this session students will delve into the crucial intersection of operational robustness and ecological responsibility within supply chain management. Through a blend of theoretical insights and practical examples, learners will gain a profound understanding of strategies to fortify supply chains against disruptions while adhering to sustainable practices. The session will also delve into the potential tradeoffs at the intersection of supply chain resilience and sustainability. Key topics include the definitions of supply chain resilience and sustainability, risk identification, mitigation strategies, the dynamic approach to supply chain resilience, and the integration of green initiatives into supply chain design. By the end of the session, participants will be equipped to analyze, enhance, and strategize resilient and sustainable supply chains in today's dynamic business landscape.

Reading

Bruno, R. L.; Matusiak, M.; Osaulenko, K., & Radosevic, S. (2023). "Digitalisation" and "greening" as components of technology upgrading and sustainable economic performance. *Sustainability, 15*, 1838.

Bruno, R. L., Korosteleva, J., Osaulenko, K., & Radosevic, S. (2024) Sectoral digital capabilities and complementarities in shaping young firms' growth: Evidence from Europe. *Entrepreneurship & Regional Development,* 36(1-2), 115-135.

3.2 Dual transition

Addressing the challenges of climate change in the digital era, companies are encouraged to do the green transition and digital transition, which is called as dual transition. After the lecture, participators will understand the definition of dual transition, importance of dual transition, master the mechanism to achieve dual transition.

The lecture will 1) discuss the contribution of dual transition to the SDGs, 2) introduce the relationship and interaction between the green transition and digital transition, and 3) analyze the reasons and influencing factors in the process of dual transition. In addition, Participators are asked to share cases of dual transition in their hometown.

3.3 Innovation and Innovation Management

Over the last two decades, managing innovation has steadily emerged as an important and challenging topic for business practice, academic research, and public policy. This session aims to provide a foundation for understanding innovation and innovation management within sustainable companies and other organizations. The course will be divided into two parts, covered through a combination of presentations by the lecturer, exercises, and in-class discussions: (1) Introduction to the Foundations of Innovation, and (2) Boosting Creativity Among Innovators and Sustainable Companies. Specifically, we will discuss the following topics:

1. Introduction to the Foundations of Innovation
   - Definitions of Innovation

- Innovators and Discovery Skills
- Innovation Paradoxes
- Classifications and Types of Innovation
- Innovation, Society and Public Policy

2. Boosting Creativity Among Innovators and Sustainable Companies
   - Creativity
   - Trends and Networks as Idea Sources
   - Creativity Tools and Workshops
   - Stimulating Internal Ideas
   - Collecting Outside Ideas

3.4 Circular economies

This session will focus on the circular economy – an increasingly relevant sustainability paradigm that has institutional support from various governments (e.g., China, UK, Netherlands), supranational organizations (e.g., UN, EU), and non-governmental organizations and think tanks (e.g., Ellen MacArthur Foundation, World Economic Forum). But what is the circular economy and how does it work? This session will explore the origin of the circular economy paradigm and the many different ideas and approaches that have garnered such interest and commitment from various organizations. A particular focus will be on how firms try to make the circular economy work in practice through business models, supply chains, and industry restructuring systems, and the myriad problems that often prevent sustainability gains from circularity. Current and future solutions to these problems will be presented and explored through classroom discussion.

Reading

Day, S., Masi, D., Godsell, J., & Zhang, W. (2020). Predicting consumer adoption of branded subscription services: A prospect theory perspective. *Business Strategy and the Environment, 29,* 1310-1330.

Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on the circular economy: The expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production, 114,* 11-32.

3.5 Business model innovation

What is the essence of business model, and how can we innovate business model with a systematic framework? It is worth noting that although the concept of business model has been discussed for many years, there are still lots of confusions among industrial practitioners in their business model design and innovation practices. We would like to deliver a concise framework for business model design, with a basic thinking that innovation is most often the recombination of existing elements.

1. The essence of business model
2. Decomposing the basic elements of business model innovations

3. Evaluating business model
4. In-class team discussion

3.6 Social entrepreneurship and rural revitalization

How to revitalize rural areas has been a national priority in China. This lecture introduces the process of rural development, with a benchmarking view with cities. Special attention is given to entrepreneurs in the rural areas. Firstly, the small rural tourism business and their involvement in the community social responsibility will be highlighted. Secondly, the innovative collective social entrepreneurship in rural areas will be presented.

Social entrepreneurship and rural revitalization (3 class hours)
- Introduction about rural development in China
- Rural tourism as a development approach
- Small enterprises in rural areas and their community social responsibility
- Collective social entrepreneurship in rural areas

3.7 Responsible business

Under the context of globalization and digitalization, managers are required not only to provide high-quality products and service but also to take social and environmental issues into consideration. This lecture aims to introduce basic theories and development on business ethics and corporate social responsibility (CSR) to the students. Students are also encouraged to reflect on their own experience and practice to understand how to do responsible business in a strategic way.

Key Points:
1. What is responsible business as suggested by UN SDGs
2. What is the ethical dilemma and potential stakeholder conflicts in responsible business
3. Potential solutions from real cases

3.8 Sustainable operations management

This session embarks on an educational journey, beginning with an introduction to the subject and its critical relevance in today's world. We will explore the concept of Sustainability Maturity Assessment, dissecting its components and stages, and then delve into practical applications through case studies and group activities. This will be followed by an engaging segment on the Materiality Matrix, where we will not only learn about its theoretical underpinnings but also participate in a hands-on exercise to understand its practical implications in decision-making processes. The session will culminate with an in-depth look at the Design and Implementation of a Sustainability Roadmap. Here, we will discuss strategies for effective implementation, supplemented by insights from industry experts or real-life case studies. The

session aims to seamlessly integrate theory and practice, providing participants with a comprehensive understanding of sustainable supply chain management, and concluding with a recap and a question-and-answer segment to consolidate learning.

Reading

Nunes, B., Batista, L., Masi, D., & Bennet, D. (2023). *Sustainable operations management: Key practices and cases.* Routledge, Milton Park, UK.

3.9 Sustainable production and consumption

Welcome to the intriguing realm of "Sustainable Production and Consumption," a course designed to delve into the intricate interplay between consumer psychology and decision-making processes within the context of sustainability. In this dynamic exploration, we will unravel the fascinating factors that influence individuals' choices in the realm of production and consumption, shedding light on the psychological drivers that shape our interactions with products, services, and the environment. From understanding the motivations behind sustainable choices to deciphering the cognitive processes that drive consumption patterns, this course offers a comprehensive view of the intricate relationship between consumer behavior and sustainable practices. As we navigate this field, the following three course subtitles will guide our journey:

1. **"The Psychology of Sustainable Choices"**: Uncover the psychological underpinnings that drive individuals to make sustainable decisions, exploring the motivations, perceptions, and cognitive biases that shape consumer behavior.

2. **"Green Marketing and Consumer Influence"**: Examine the strategies employed by businesses to promote sustainable products and analyze how these tactics influence consumer choices. Dive into the world of green marketing and its impact on shaping sustainable consumption patterns.

3. **"Behavioral Economics in Sustainable Decision Making"**: Explore the intersection of economics and psychology in the context of sustainable production and consumption. Understand how behavioral economics principles can be applied to encourage environmentally conscious choices and promote sustainable practices.

3.10 Empirical and analytics methods for solving green business problems

In this session, we will explore effective idea generation and execution in green business contexts, focusing on how empirical and analytical methodologies can complement each other. Empirical work involves creating conceptual models to define relationships among variables, collecting data, and using statistical methods to test these relationships, while analytical modeling focuses on interactions between players, where each optimizes their own decisions to reach an equilibrium. Although these approaches

may seem distinct, integrating them can address significant challenges. The workshop will demonstrate techniques for framing effective research questions within the boundaries of each methodology, highlighting the risks of overstating objectives or misaligning research questions. Additionally, we will discuss strategies for positioning research to maximize its impact, emphasizing interdisciplinary approaches and offering tips on research planning. Participants will engage in identifying potential research questions that benefit from both methodologies, transforming these questions into actionable insights. The workshop will conclude with a Q&A session and open discussion to explore future research directions.

4. Evaluation

Progress towards the learning objectives is evaluated via individual in-class participation, one group-based project that cumulates in a presentation, and one individual assignment based on that project.

4.1 In-class participation

In-class participation accounts for 20 per cent of the final score and is marked by the academic director. Good performance generally requires active and relevant engagement with the content discussed during the individual courses. The following rubric indicates more nuanced descriptions of different performance levels:

4.2 Group-based project

The group-based project allows randomly assembled student teams to develop a business plan or improvement initiative that simultaneously maximises financial and environmental objectives. The purpose of this project is to give students the opportunity to engage with some of the concepts of the course at a deeper level and innovate. The group-based project and the presentation that it results in accounts for 50 per cent of the final score and is marked by a panel of instructors in the last two sessions of the course. Good performance generally requires creativity, in-depth insight, and effective communication.

4.3 Individual assignment

The individual assignment is based on the group-based project but is written by each student on their own. The purpose of this assignment is to enable students to reflect on some of the strengths and weaknesses of their project and hone their ideas further. It accounts for 30 per cent of the final score and is marked by the instructor. Good performance generally requires critical thinking and clear argumentation.

4.4 Evaluation criteria

The following criteria indicate expected performance at different levels.

- **Distinction:** Evidence of excellent understanding of key relevant concepts, possibly indicating some self-study and wider interests. There may be a considerable ability to generalize beyond the particular issue and apply critical thinking coupled with excellent understanding of the background subject matter. There may be a considerable ability to develop and communicate nuanced and detailed solutions to complex and/or advanced problems pertinent to the discussed issues.
- **Merit:** Evidence of proficient understanding of key relevant concepts, possibly indicating some self-study and wider interests. There may be a limited ability to generalize beyond the particular issue and apply critical thinking coupled with a proficient understanding of the background subject matter. There may be an ability to develop and communicate considered and detailed solutions to simple and/or basic problems pertinent to the discussed issues.

- **Satisfactory:** Evidence of rudimentary understanding of key relevant concepts when applied to particular issues. There may be limited evidence of ability to generalize beyond the particular issue with limited critical thinking coupled with satisfactory understanding of the background subject matter. There may be a limited ability to develop and communicate solutions to simple and/or basic problems pertinent to any of the discussed issues.
- **Pass:** Some evidence of relevant or critical contributions to any discussed issues but there may be a lack of active participation and/or engagement with key concepts and background subject matter.
- **Fail:** No evidence of relevant or critical contributions to any discussed issues.