

Fundamentals of Sustainability Management (Bachelor, M.Sc., and MBA)

This syllabus serves as an illustrative example of how to incorporate the concepts and principles from the book “Sustainable Business Model Design – 45 Patterns” into a comprehensive academic course on sustainability management, titled “Fundamentals of Sustainability Management”.

By drawing on the insights contained in "Sustainable Business Model Design – 45 Patterns" and combining them with a general understanding of sustainability management, this course provides a structured and thought-provoking exploration of sustainable business practices and their integration within sustainability management frameworks. The course empowers students to develop the foundations needed to become key advocates for sustainability transformations in both business and society.

The authors have successfully delivered similar courses at various international business schools and universities. Hundreds of students and executives have already benefited from learning the fundamental concepts and skills of sustainability management and sustainable business model design.

If you have questions or want to share feedback, which would be much appreciated, send a message via <https://www.sustainablebusiness.design/#contact>.

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Fundamentals of Sustainability Management

Incl. an introduction to “Sustainable Business Model Design”

I – Course characteristics

- Contact hours: 25-30 hours
- Course type: core course or elective
- Format: lecture, flipped classroom, group work, workshop
- Prerequisites: none

II – Course outline

The pressing global challenges of climate change, resource depletion, and social inequalities demand innovative solutions. Sustainable business practices have emerged as a powerful force in addressing these issues, reshaping industries, and creating a positive impact on both the environment and society. As aspiring leaders, managers, entrepreneurs, and change-makers, understanding and mastering sustainability management is crucial for building a future that is ecologically balanced, socially just, and economically thriving.

This course introduces the foundations of corporate sustainability and its management, that is, approaches that allow systematically integrating ecological and social considerations into a company’s core business activities. Key concepts such as the business and society nexus, corporate social responsibility (CSR), the business case for sustainability, and sustainability accounting and communication will be introduced.

Students will learn the basics of sustainability management systems (most importantly EMAS and ISO14001) and how companies can make use of them. Following a short introduction to management systems in general, we explore the steps from developing corporate sustainability policies to implementing different activities contributing to corporate sustainability. This includes, for example, understanding the role of accounting, reporting, and communication as key elements of sustainability management systems. We will furthermore discuss opportunities for developing a strategic approach to sustainability management in terms of the so-called business case for sustainability, that is, business solutions that benefit both business and society. Several cases from business practice will be analysed and critically discussed.

In this context, particular attention will be paid to sustainable business model design as a novel extension of sustainability management. Business model innovation will be introduced as a tool to make a company’s core business activities more sustainable and to overcome the limitations of its current way of doing business. Students will make use of 45 patterns for sustainable business model design in a case-based, one-day hands-on workshop. This interactive format allows experiencing sustainable business model design in practice.

III – Assurance of learning (AoL)

[Note to teachers: Add your programme- and course-specific learning goals (LG) and learning objectives (LO), and specify their respective level: I= Introduction, E= Emphasis, R= Reinforcement.]

For example, learning goals (LG) such as:

- To exhibit well-developed **critical and creative thinking**.
- To develop a comprehensive understanding of **sustainability principles and practices**.
- To develop team-building and **leadership skills** that can foster responsible decision-making in sustainability management.
- To be **socially responsible leaders**.
- To exhibit **scientifically sound knowledge** of sustainability issues.

And learning objectives (LO) such as:

- To **analyse** complex sustainability challenges and formulate managerially relevant recommendations.
- To **assess** social responsibility and stakeholder engagement.
- To **navigate** relevant environmental regulation and compliance standards.
- To **synthesise** the principles of social responsibility.
- To **evaluate** the impact of natural resources and climate change on society and economies.
- To **develop** innovative business models that prioritize sustainability.

IV – Learning goals: What will students be expected to achieve?

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This course is designed for students who will either work in highly internationalised environments (such as multinational corporations) or take international development responsibilities both of which are related to sustainability issues. In this respect, this course will focus on the foundations of corporate sustainability management and the importance of management systems in realising more sustainable business operations. As a novel approach, students will learn how to design better business models as a way of aligning a company's core business activities with sustainability considerations.

Knowledge and understanding

At the end of the course, the student will be able to ...

- understand which areas of business are relevant to sustainability issues,
- approach solutions to ecological and social business challenges with appropriate management frameworks and tools.

Skills (subject specific)

At the end of the course, the student will be able to ...

- to analyse a business situation from the point of view of its sustainability impacts,
- select appropriate management frameworks and tools to deal with these impacts.

Skills (cognitive and Intellectual)

At the end of the course, the student will be able to ...

- understand why trade-offs and tensions between business activities and societal needs occur,
- identify and describe general management approaches to create solutions for societal issues.

Skills (transferable)

At the end of the course, the student will be able to ...

- identify and analyse business situations and management tasks related to societal issues,
- prepare and give solution-oriented managerial presentations on business matters.

Values and attitudes

At the end of the course, the student will be able to ...

- understand the strengths and limitations of corporate sustainability management,
- consider the impacts of business activities on the natural environment and society.

V – How will students learn?

[Note to teachers: Select the modes and methods that are most appropriate to your setting. Mainly face-to-face formats are recommended, particularly for the sessions on sustainable business model design. You can also make use of additional online materials, incl. pre-readings and videos, e.g., from <https://www.coursera.org/learn/business-models-for-sustainability>.]

Delivery modes

- 100% Face to face
- 100% Face to face/teaching materials online
- 100% Online
- Blended

Teaching Methods

- Lectures
- Case studies
- Business games
- Group work
- Projects
- Tutorials
- Workshop

Knowledge acquisition

Sessions of 120 minutes are typically composed of 60 minutes of lecture and 60 minutes for additional tasks and interactive formats, including discussions, in-class assignments, and short case studies.

Knowledge acquisition is reinforced through extensive case study work, hands-on group work, and a workshop on sustainable business model design. Students must read the recommended materials and work on tasks between sessions to be sufficiently prepared.

Skills acquisition

There will be several case studies and practical examples. In addition, students work in groups. A special feature of this course is a case-based, one-day hands-on workshop on the novel approach of sustainable business model design.

VI – Course content

[Note to teachers: The following outline is based on a 30-hours course, organised in 15 sessions of 120 minutes. You can scale the course according to your needs and preferred length by adapting the range of chapters and sessions per chapter, based on the recommended basic readings, in particular textbooks such as Hahn (2022), Lüdeke-Freund et al. (2022), Rasche et al. (2023), and texts from sources such as Harvard Business Review (see below).]

This course consists of 15 sessions of 120 minutes and covers the following six chapters:

<i>Session & subject</i>	<i>Specific topics</i>	<i>Assignment</i>
Chapter I: (Un-)Sustainable development		
<i>Session 1: Introduction to sustainable development & status quo</i>	<ul style="list-style-type: none">• Historical ideas of sustainable development• Sustainable development – Definitions and concepts• Where are we today – Unsustainable development	Read Ibisch et al. (2019), Part I; Hahn (2022), Chapters A1, A2
<i>Session 2: Major SD frameworks and concepts on micro, meso, macro levels</i>	<ul style="list-style-type: none">• Major frameworks of sustainable development• Major strategies of sustainable development• Micro- and macroeconomic concepts	Read Ibisch et al. (2019), Part I; Hahn (2022), Chapter A4; optional: Rockström et al. (2009, 2023)
Chapter II: Business and sustainability		
<i>Session 3: Introduction to business sustainability</i>	<ul style="list-style-type: none">• The business, society, and nature nexus• Business sustainability• The sustainability triangle and the integration challenge	Read Hahn (2022), Chapter A3; Rasche et al. (2023), Chapter 1
<i>Session 4: The business case for sustainability</i>	<ul style="list-style-type: none">• What is sustainability management (vs. CSR)?• The business case for sustainability• What companies do – Status quo of sustainability management	Read Schaltegger & Burritt (2005); Farri et al. (2023); Gassmann et al. (2022); optional: Rasche et al. (2023), Chapter 10
Chapter III: Sustainability management systems		
<i>Session 5: Introduction to management systems</i>	<ul style="list-style-type: none">• Basics of management systems and the PDCA cycle	Read Hahn (2022), Chapter C7

	<ul style="list-style-type: none"> • Introduction to quality management systems • Basics and types of sustainability management systems 	
Session 6: Selected sustainability management systems	<ul style="list-style-type: none"> • Introduction to ISO 14001, EMAS, ISO 26000 • Principles of implementing ISO 14001 and EMAS • Short group presentations 	Do research on ISO 14001, https://www.iso.org/iso-14001-environmental-management.html , EMAS, https://green-business.ec.europa.eu/eco-management-and-audit-scheme-emas_en , and other selected standards and frameworks Prepare 10-minutes presentations on the above in small groups
Chapter IV: Sustainability accounting and communication		
Session 7: Introduction sustainability impact assessment and reporting	<ul style="list-style-type: none"> • Introduction to sustainability accounting • Basics of sustainability communication and reporting • Work on examples from practice 	Read Hahn (2022), Chapter C6; Andreou & Besharov (2022)
Session 8: Guest speaker	<ul style="list-style-type: none"> • Business expert presenting examples and current trends of sustainability accounting and reporting 	Do research on case company and prepare questions for guest speaker
Chapter V: Strategic sustainability management		
Session 9: Introduction to strategic sustainability management	<ul style="list-style-type: none"> • Essentials of strategic management • Basic corporate environmental strategies • Case analysis: BP's strategic response to corporate crises and renewable energies 	Read Rasche et al. (2023), Chapter 5; Ioannou & Serafeim (2019)
Session 10: Guest speaker	<ul style="list-style-type: none"> • Business expert presenting examples and current trends of strategic sustainability management 	Do research on case company and prepare questions for guest speaker
Chapter VI: Sustainable business model design (SBMD)		
<p><i>[Note to teachers: This chapter aims at introducing the basics of sustainable business model design as a strategic and innovative extension of sustainability management. In this workshop, students will learn the basic concepts and skills of working with business model patterns. The following resources can be used by teachers to prepare this part of the course:</i></p> <ul style="list-style-type: none"> ▪ SBMD book: book preview ▪ 45 SBMD cards: cards preview ▪ Lecture slides: slide deck (free download) ▪ Detailed workshop concept: facilitation guide (free download) 		

<ul style="list-style-type: none"> Business model worksheet: Business Modelling Kit (free download) <p>As additional preparation for the workshop for both teachers and students, the following MOOC is recommended: https://www.coursera.org/learn/business-models-for-sustainability.]</p>		
Session 11: Introducing sustainable business model design	<ul style="list-style-type: none"> What is a business model? What is a sustainable business model? What is sustainable business model design? 	Read Lüdeke-Freund et al. (2022), Chapter 2
Session 12: Understanding and navigating business model patterns	<ul style="list-style-type: none"> What is a pattern for sustainable business model design? What types of patterns do exist and how can they be used? Introduction to the workshop format and main tools. 	Read Lüdeke-Freund et al. (2022), Chapter 3
Sessions 13 & 14: SBMD workshop, including result presentation	<ul style="list-style-type: none"> Introduction to the case and challenges to work on 180 minutes of active business modelling Groups present their modelling results 	Read Lüdeke-Freund et al. (2022), Chapter 5 and screen the 45 patterns in Chapter 4 Familiarise yourself with the case company
Wrap-up		
Session 15: Reflection, Q&A	<ul style="list-style-type: none"> Q&A on chapters I-VI Q&A on preparation for final exam 	Work on exemplary exam

VII – How will students be assessed?

[Note to teachers: Add your programme- and course-specific assessment and grading criteria. Add a reference to your examination rules. The following are examples.]

Assessment component, assessment type, weighting

- Written exam, individual grading, 50%
- Case study group work, group grading, 25%
- Sustainable business model design workshop, group grading, 25%

Assessment criteria

Students will be assessed on their understanding of the material covered in the course and their ability to reproduce it in a written exam and apply it to new situations and cases in group work and workshop settings. Discussion questions must be answered and the students' capability to transfer their knowledge to different tasks and contexts will be checked.

Assessment Regulations

The pass mark for the course is 50%, calculated as the weighted average of the individual and group performances.

Feedback on assessment

Feedback will be provided through the exam and group work grades, through continuous verbal feedback in class, and in consultation hours.

VIII – Reading list

[Note to teachers: Add further specific readings, incl. books, journal articles, and business publications, which you can use to put special emphasis on selected topics.]

Basic readings

Hahn, R. (2022): Sustainability Management. Global Perspectives on Concepts, Instruments, and Stakeholders. Fellbach: Hahn. <https://sustainabilitymanagementbook.com/> (→ slides/instructor materials available)

Ibisch, P; Molitor, H.; Conrad, A; Walk, H; Mihotovic, J. & Geyer, J. (2019): Humans in the Global Ecosystem. An Introduction to Sustainable Development. Munich: Oekom.

Lüdeke-Freund, F.; Breuer, H. & Massa, L. (2022): Sustainable Business Model Design – 45 Patterns. Berlin. <https://www.sustainablebusiness.design/> (→ slides/instructor materials available)

Lüdeke-Freund, F.; Breuer, H. & Massa, L. (2023): Sustainable Business Model Design – 45 Cards. Berlin. <https://www.sustainablebusiness.design/> (→ slides/instructor materials available)

Rasche, A.; Morsing, M.; Moon, J. & Kourula, A. (2023): Corporate Sustainability: Managing Responsible Business in a Globalised World. Cambridge University Press.
<https://www.cambridge.org/gb/universitypress/subjects/management/business-ethics/corporate-sustainability-managing-responsible-business-globalised-world-2nd-edition> (→ slides/instructor materials available)

Rockström, J.; Steffen, W.; Noone, K. et al. (2009): A Safe Operating Space for Humanity, Nature, Vol. 461, 472–475, <https://doi.org/10.1038/461472a>.

Rockström, J.; Gupta, J.; Qin, D. et al. (2023): Safe and Just Earth System Boundaries, Nature, Vol. 619, 102–111, <https://doi.org/10.1038/s41586-023-06083-8>.

Schaltegger, S. (2013): Sustainability Management, in: Idowu, S.; Capaldi, N.; Zu, L. & Das Gupta, A. (Eds.): Encyclopedia of corporate social responsibility. Berlin/Heidelberg: Springer, 2384–2388.
https://link.springer.com/referenceworkentry/10.1007/978-3-642-28036-8_741

Schaltegger, S. & Burritt, R. (2005): Corporate Sustainability, in: Folmer, H. & Tietenberg, T. (Eds.): International Yearbook of Environmental and Resource Economics 2005/2006. Cheltenham: Edward Elgar, 185–222. <https://www.e-elgar.com/shop/gbp/the-international-yearbook-of-environmental-and-resource-economics-2005-2006-9781845422066.html>

Professional readings

Andreou, N. & Besharov, M. (2022): Rethinking How We Measure Companies on Social and Environmental Impact, MIT Sloan Management Review, <https://sloanreview.mit.edu/article/rethinking-how-we-measure-companies-on-social-and-environmental-impact/>.

Farri, E; Cervini, P. & Rosani, G. (2023): The 8 Responsibilities of Chief Sustainability Officers, Harvard Business Review, <https://hbr.org/2023/03/the-8-responsibilities-of-chief-sustainability-officers>

Gassmann, P.; Cox, E.; Bischof, R. et al. (2022): Empowered Chief Sustainability Officers – The key to remaining credible and competitive. Frankfurt a.M.: PwC. <https://www.strategyand.pwc.com/de/en/functions/sustainability-strategy/cso-2022.html>

Ioannou, I. & Serafeim, G. (2019): Yes, Sustainability Can Be a Strategy, Harvard Business Review, <https://hbr.org/2019/02/yes-sustainability-can-be-a-strategy>.

Further professional resources

Harvard Business Review on Sustainable Business Practices: <https://hbr.org/topic/subject/sustainable-business-practices>

MIT Sloan Management Review's Sustainability Global Executives Studies: <https://sloanreview.mit.edu/projects/corporate-sustainability-at-a-crossroads/>

MIT Sloan Management Review's Strategy Forum: <https://sloanreview.mit.edu/mitsmr-strategy-forum/>

Additional resources for SBMD workshop

[SBMD website](#) / [book preview](#) / [cards preview](#)

[SBMD lecture slides](#)

[SBMD workshop facilitation guide](#)

[Business Modelling Kit](#)

[Podcast introduction to SBMD](#)

[Short video introduction](#)

[MOOC on “Business Models for Sustainability”](#)