

ERASMUS + KA2 - Cooperation for innovation and the exchange of good practices

KA203 - Strategic Partnerships for higher education

„Teaching Sustainability in Higher Education in the Field of Economics and Management“

SUSTA (2020-1-PL01-KA203-081980)

IO2 - task 2.1.

Developing Dictionary of skills and competences of sustainability



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Introduction

The main goal of the SUSTA project is to develop an education program in the field of sustainable development and sustainable consumption and to increase the knowledge, awareness, and involvement of business students in environmental issues. As the project aims at creating an involving concept of teaching sustainability to students of economics and management which would result in raising the level of awareness and level of involvement in the problems of sustainability, dictionary of skills and competences in the area of sustainability is developed.

Based on results of survey among students, we identified key competences and skills aiming to run a business in sustainable manner with respect to environmental, social and economic cohesion.

The professional profile of sustainable manager

Table 1. Professional profile

SUSTAINABILITY MANAGER
<p>Sustainability manager is a person who develops and monitor implementation of sustainable principles in business strategy. Besides that, he/she plans, leads, controls and reports on sustainable business practices implemented in organization's operation.</p> <p>Sustainability manager is responsible for formalization of measurements of sustainability performance, budgeting, coordination and communication regarding implementation of green strategies to all stakeholders within and outside the organization.</p> <p>In addition, he/she is able to carry out analyses and audit of waste management, environmental impact, social awareness and ethical conduct of the organization aimed to reach universal sustainable development goals. He/she has special knowledge and skills to assess inefficiencies in the organization. Based on his/her knowledge, he/she can find and propose solutions to mitigate inefficiencies in reaching sustainable development goals by applying innovative and recent solutions in the field.</p>

Table 2. Professional competences

COMPETENCE 1	
RECOGNITION AND CRITICAL ANALYSIS OF SUSTAINABLE DEVELOPMENT GOALS IN MODERN MANAGEMENT	
Abilities (skills)	Knowledge (areas of knowledge)

<ol style="list-style-type: none"> 1. To assess impact of an individual person acts for the environment 2. To understand implications of global economic growth in local areas 3. To evaluate effects of different production methods in environment 4. To be aware of implications for future generations of not considering environmental costs in production processes 5. To introduce circular economy principles in day-to-day company practices and strategic planning 6. To quantify short- and long-term economic benefits of sustainable long-term planning in organizations 7. To evaluate hazards and to propose prevention mechanisms of non-sustainable practices in the organization 8. To understand differences between sustainable and unsustainable consumption and their implications for environment and company long term profitability 9. To be aware of market segmentations and consumers' perceptions about SDGs and their behavior regarding these concepts. 10. To propose strategies and actions that fit with consumers demands regarding SDGs 	<ol style="list-style-type: none"> 1. Climate change 2. UN SDGs and other EU policies 3. 0% rate growth 4. Responsible and circular economy 5. Public institutions in area of sustainability 6. Historical sustainable ideas 7. Engel law 8. Tragedy of common good 9. Complexity and system theory 10. Corporate Social Responsibility
<p>COMPETENCE 2</p> <p>RECOGNITION OF INNOVATIVE APPROACHES IN SUSTAINABLE INDUSTRY AND SUSTAINABLE CONSUMPTION</p>	
<p>Abilities (skills)</p>	<p>Knowledge (areas of knowledge)</p>
<ol style="list-style-type: none"> 1. To assess the impact of industry to the environment (production and service industry) 2. To assess the importance of the carbon emission management 3. To understand and operate EU Emission Trading System and to evaluate the price of the EU emission allowances 4. To evaluate existing consumption disparities over individual countries and income groups 	<ol style="list-style-type: none"> 1. Responsible Innovation 2. Impact of digitalization on sustainability 3. Sustainable consumption patterns 4. Resource usage (water, energy, land) 5. Zero carbon emissions 6. Zero waste 7. Greening based on tradition (permaculture) 8. Greening based on innovation

<ol style="list-style-type: none"> 5. To be familiar with the role and importance of innovation and intellectual property transfer in relation to the human society sustainable development 6. To identify sectoral specifics related to usage of basic resources (water, energy, land) 7. To understand the importance of political instruments related to the green sustainable economy 8. To understand and use the carbon footprint/pollution footprint online calculators 9. To access the specific role of agriculture in relation to zero-carbon emission ambitions, greening ambitions, and zero waste management 10. To understand and evaluate the role and importance of life-cycle management systems in relation to sustainable industry and sustainable consumption 	
<p>COMPETENCE 3</p> <p>DEVELOPMENT OF SUSTAINABLE BUSINESS STRATEGIES AND PROCESSES</p>	
<p>Abilities (skills)</p>	<p>Knowledge (areas of knowledge)</p>
<ol style="list-style-type: none"> 1. To identify actions that are sustainable 2. Strong leadership 3. Time management 4. Basic data skills 5. Creative problem-solving 6. Forward-thinking 7. Effective communication 8. Finding strategic opportunities 9. Determining the potential value 	<ol style="list-style-type: none"> 1. Stakeholders analysis 2. Global environment impact 3. Total Quality Management 4. Statistical process control 5. CSR 6. Eco-innovations 7. Short- and long-term effects of sustainable actions 8. Responsible product development 9. Life cycle management/analysis 10. Greenwashing
<p>COMPETENCE 4</p> <p>IMPLEMENTATION OF GREEN SUPPLY CHAINS AND BUSINESS LOGISTICS</p>	
<p>Abilities (skills)</p>	<p>Knowledge (areas of knowledge)</p>

<ol style="list-style-type: none"> 1. Risk-based thinking 2. Process and systems thinking 3. Ability of effective conflict management 4. Ability of effective problem management 5. Ability of managing information channels 6. Ability of managing channels 7. Green thinking/green approach 8. Responsible innovations 9. Stakeholder thinking 10. Critical approach 	<ol style="list-style-type: none"> 1. Last mile dilemma 2. Responsibility of contemporary consumer 3. Global supply chains, solutions and consequences 4. Food supply chains, poverty reduction and social and environmental aspects 5. Alternative retail formats 6. Sharing economy 7. Responsible packaging 8. Product carbon footprint 9. Green supply chains strategies (time, distance and resources) 10. Paperless documentation
<p>COMPETENCE 5</p> <p>BUDGETING, EVALUATING, REPORTING AND AUDITING IN IMPLEMENTATION OF SUSTAINABLE BUSINESS PRACTICES</p>	
<p>Abilities (skills)</p>	<p>Knowledge (areas of knowledge)</p>
<ol style="list-style-type: none"> 1. Interpreting disclosure requirements 2. Data analysis 3. Categorizing data 4. Relevance assessment 5. Prioritizing 6. Goal setting 7. Content analysis 8. Teamwork 9. Discussion and listening 10. Focusing on details 	<ol style="list-style-type: none"> 1. Interpretation of disclosure requirements regarding non-financial reporting (regulatory framework) 2. Analysis of data and information to be measured and reported 3. Arrangement of data into categories by established criteria 4. Listing data categories by their relevance (importance and materiality) 5. Emphasize and explanation of the importance of achieving set goals through reporting on sustainability 6. Contribution to the fulfilment of regulatory reporting requirements but also additional non-mandatory disclosures (reporting on sustainability) 7. Auditing of published non-financial reports and giving the support in improvement of their content

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Developing Extended syllabus of teaching course on sustainability



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1. GENERAL INFORMATION	
1.1. Name of the course	SUSTAINABILITY
1.2. Study program	Undergraduate Study Program /Master Study Program
1.3. Status of the course	Elective
1.4. ECTS credits	5
1.5. Type of instructions (number of hours: lectures + seminars + e-learning)	Lectures – 20 hours; seminars via e-learning – 10 hours
1.6. Percentage of online instructions	1/3 = 33,33%
2. COURSE DESCRIPTION	
2.1. Course objectives	The course aims to deliver students the necessary knowledge regarding sustainable development and sustainable consumption and to enable them with the necessary knowledge and skills to recognize and implement innovative approaches in the application of sustainable business strategies and processes. Within the course, students will broaden their knowledge of sustainability concepts and they will be able to critically discuss their positive and negative aspects. Through discussions and case study analyses, students will learn how to implement sustainability principles in various industries on strategic, tactical, and operational management levels.
2.2. General learning outcomes	<p>Students will acquire knowledge on:</p> <ul style="list-style-type: none"> ● Role of sustainable development goals in modern business ● Sustainable consumption and its consequences in various industries ● Terminology and aspects of sustainable business strategy and operation by introducing concepts and business cases in areas such as UN SDGs, zero-waste, circular economy, sustainable consumption, eco-innovations, greenwashing, sustainability reports, green financing, etc. ● Significance and outcomes of an innovative approach to sustainability in modern management <p>Students will gain skills and competencies to:</p> <ul style="list-style-type: none"> ● recognize and critically analyze aspects of the

	<p>implementation of sustainable development goals in modern management</p> <ul style="list-style-type: none"> ● recognize and implement innovative approaches in sustainable industry and sustainable consumption ● develop sustainable business strategies and processes ● plan, implement, and manage sustainability projects ● implement circular economy and green supply chain principles in everyday operations ● budget, evaluate, report, and audit the implementation of sustainable business practices.
<p>2.3. Specific learning outcomes at the level of the course (3 to 10 learning outcomes)</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● list, define and critically analyze the key sustainable development goals ● arguably discuss the benefits and obstacles of sustainable industry and sustainable consumption ● evaluate short-term and long-term economic benefits of sustainable business planning in organizations ● discuss and understand the role of innovation and human factor in implementation of sustainable business practices ● identify, manage and communicate actions that are sustainable using their skills of forward-thinking, creative problem-solving, finding strategic opportunities and effective communication ● understand stakeholder thinking, risk-based thinking, process and systems thinking, green thinking ● apply the principle of materiality and distinguish relevant and irrelevant actions and disclosures ● apply the regulatory framework of sustainability reporting and independently prepare sustainability report according to European Directives in the field of Sustainable Development
<p>2.4. Course content (syllabus)</p>	<p>1. INTRODUCTION TO THE SUSTAINABLE DEVELOPMENT GOALS IN MODERN MANAGEMENT</p> <hr/> <p>1.1. Concept of sustainability and climate change – past, present and future</p>



- 1.2. Resource usage, zero carbon, and zero waste emissions
- 1.3. Institutional framework for sustainability
- 1.4. UN SDGs and other EU policies
- 1.5. Responsible and circular economy
- 1.6. Social aspects of sustainable development

2. INNOVATIVE APPROACHES TO SUSTAINABLE CONSUMPTION

- 2.1. Sustainable consumption patterns
- 2.2. Consumption reduction behavior
- 2.3. Movement for slow and minimalistic sustainable living
- 2.4. Case studies in promotion and fostering sustainable consumption

3. SUSTAINABLE BUSINESS STRATEGIES AND PROCESSES

- 3.1. Corporate Social Responsibility and its Stakeholders
- 3.2. Life cycle management, Eco-innovations and global environmental impact
- 3.3. Greenwashing and social washing
- 3.4. Impact of digitalization on sustainability
- 3.5. Short-term and long-term effects of sustainable actions in various industries

4. GREEN SUPPLY CHAINS AND BUSINESS LOGISTICS

- 4.1. Sustainable supply chains, solutions and consequences
- 4.2. Food supply chains, poverty reduction and food waste reduction - social and environmental aspects
- 4.3. Alternative retail formats, responsible packaging, and warranties for durables
- 4.4. Green supply chain strategies in practice

5. DISCLOSURES IN SUSTAINABLE BUSINESS PRACTICES

- 5.1. Regulatory framework on non-financial reporting
- 5.2. Analysis of social responsibility reporting standards and frameworks
- 5.3. Transparent non-financial reporting and audit of non-financial reports (plans vs. results)





	5.4. Green finances (bonds and loans)
2.5. Format of instruction	● lectures
	● seminars
	● workshops
	● partial e-learning
	● independent assignments
	● work with mentor
2.6. Student responsibilities	Active participation in classes and analysis of case studies from business practice.
2.7. Monitoring student work	Class attendance
	Practical work
	Seminar paper
	Written exam
2.8. Required literature (available in the library and/or via other media)	Pierański, B. et al. (2023), Sustainability - e-book for students, BoguckiWydawnictwoNaukowe, Poznań, available at: https://ue.poznan.pl/dokumenty/e-book-on-sustainability-for-students/
	Lluch, D.B.; Pieranski, B.; Knežević, B. (Eds.) (2023), Business Sustainability – The Collection of Case Studies for Students, University of Zagreb – Faculty of Economics and Business, available at: https://ue.poznan.pl/dokumenty/output-case-book-04/ and https://doi.org/10.22598/susta
	Stefańska, M. (Ed.). (2021). Sustainability and sustainable development. Poznań: Poznań University of Economics and Business Press. https://doi.org/10.18559/978-83-8211-074-6
	Romanowski, R. (Ed.). (2021). Sustainable development: Innovations in business. Poznań: Poznań University of Economics and Business Press. https://doi.org/10.18559/978-83-8211-084-5
	Olejniak, I. (Ed.). (2021). Qualitative and quantitative methods in sustainable development. Poznań: Poznań University of Economics and Business Press. https://doi.org/10.18559/978-83-8211-072-2
	Białowas, S. (Ed.). (2021). Experimental design and biometric research. Toward innovations. Poznań: Poznań University of Economics and Business Press. https://doi.org/10.18559/978-



	83-8211-079-1
	Nowak, D. (Ed.). (2021). Production–operation management. The chosen aspects. Poznań: Poznań University of Economics and Business Press. https://doi.org/10.18559/978-83-8211-059-3
	Remlein, M. (Ed.). (2021). Accounting challenges for sustainability and innovations. Poznań: Poznań University of Economics and Business Press. https://doi.org/10.18559/978-83-8211-055-5
	https://ue.poznan.pl/susta-teaching-sustainability-in-higher-education-in-the-field-of-economics-and-management/
2.9. Optional literature	GRI's Sustainability Reporting Standards, https://www.globalreporting.org/how-to-use-the-gri-standards/gri-standards-english-language/
	OECD Guidelines for Multinational Enterprises, http://www.oecd.org/daf/inv/mne/48004323.pdf
	The United Nations Global Compact (the Communication on Progress), https://www.unglobalcompact.org/participation/report/cop
	The International Organization for Standardization (ISO 26000, International Standard for social responsibility), https://www.iso.org/iso-26000-social-responsibility.html
	United Nations Statistics Division: E-Handbook on Sustainable Development Goals Indicators. Available at: https://unstats.un.org/wiki/display/SDGeHandbook/Home
	Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G., Woelm, F. (2020) Sustainable Development Report 2020. The Sustainable Development Goals and Covid-19. Includes the SDG Index and Dashboards. Cambridge: Cambridge University Press. Available at: https://s3.amazonaws.com/sustainabledevelopment.report/2020/2020_sustainable_development_report.pdf
	MarkotaVukić, N., Vuković, R., Calace, D. (2017) Non-Financial reporting as a new trend in sustainability accounting. Journal of Accounting and Management Vol. 07, No. 02; str. 13 – 26.
	Continuous monitoring of student work during classes, verification of acquired knowledge through tests, case studies, workshops, preparation of independent assignments and processing of certain topics through seminar papers (student presentations). The quality and success of the course are



followed up by the results of the anonymous survey conducted at the end of classes.

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Extension to Syllabus

(Timeframe and notes for teachers)



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TIMEFRAME AND TEACHERS' NOTES FOLLOWING TOPIC IN SYLLABUS

For each item (topic) outlined in the syllabus, the timeframe and segments of books are annotated. Those books are:

- Pierański, B. et al. (2023), Sustainability - e-book for students, Bogucki Wydawnictwo Naukowe, Poznań, available at: <https://ue.poznan.pl/dokumenty/e-book-on-sustainability-for-students/> (in description referred to as **SUSTA e-book**)
- Lluch, D.B.; Pieranski, B.; Knežević, B. (Eds.) (2023), Business Sustainability – The Collection of Case Studies for Students, University of Zagreb – Faculty of Economics and Business, available at: <https://ue.poznan.pl/dokumenty/output-case-book-04/> and <https://doi.org/10.22598/susta> (in description referred to as **SUSTA casebook**)
- Stefańska, M. (Ed.). (2021). Sustainability and sustainable development. Poznań University of Economics and Business Press. <https://doi.org/10.18559/978-83-8211-074-6> (in description referred to as **SDEV e-book**)

In addition to the suggested parts from the required literature, teachers can use other materials suggested in required and additional literature to broaden the discussion on given topics and to support the practical work of students.

1. INTRODUCTION TO THE SUSTAINABLE DEVELOPMENT GOALS IN MODERN MANAGEMENT (6 hours)

1.1. Concept of sustainability and climate change – past, present and future (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 11-45

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 22 (sustainability as a concept); pages 40-42 (climate change)

1.2. Resource usage, zero carbon, and zero waste emissions (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 46-74

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 70-71

1.3. Institutional framework for sustainability (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 75-91

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 80

1.4. UN SDGs and other EU policies (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 92-120

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 114-115

1.5. Responsible and circular economy (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 166-181

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 177

1.6. Social aspects of sustainable development (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 123-166

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 162

2. INNOVATIVE APPROACHES TO SUSTAINABLE CONSUMPTION (6 hours)

2.1. Sustainable consumption patterns (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 325-337

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 334-335

2.2. Consumption reduction behavior (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 338-348

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 334-335

2.3. Movement for slow and minimalistic sustainable living (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 349-382

Discussion and practical tasks for students can be selected from: SUSTA e-book - pages 355 and 377

2.4. Case studies in promotion and fostering sustainable consumption (3 hours)

Alternative (1) Teachers can use prepared case studies in:

SUSTA casebook - pages: 313-318

SDEV e-book – pages: 35-41; 84-95; 175-180; 237-341

Alternative (2) Teachers can prepare a brief introduction to sustainable consumption based on the STDEV e-book – pages 35-41 and give students a research task to prepare their case studies to be presented in class in the form of a team project. In SUSTA casebook – pages 5 – 27 there is a comprehensive introduction to how to develop own case study.



3. SUSTAINABLE BUSINESS STRATEGIES AND PROCESSES (6 hours)

3.1. Corporate Social Responsibility and its Stakeholders (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 219-240 and 246-247

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 236

3.2. Life cycle management, Eco-innovations, and global environmental impact (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 241-255

Discussion and practical tasks for students can be selected from: SUSTA e-book – pages 258-259

3.3. Greenwashing and social washing (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 276-306

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 301-302

3.4. Impact of digitalization on sustainability (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 182-201

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 198-199

3.5. Short-term and long-term effects of sustainable actions in various industries (2 hours)

Teachers can use case studies prepared in SUSTA casebook:

agriculture - pages: 48-60; 61-106

meat production – pages: 107-116

milk industry – pages: 124-134

brewing industry – pages: 136-152

4. GREEN SUPPLY CHAINS AND BUSINESS LOGISTICS (6 hours)

4.1. Sustainable supply chains, solutions and consequences (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 263-275

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 273

4.2. Food supply chains, poverty reduction and food waste reduction - social and environmental aspects (2 hours)

Basics for lecture preparation: SUSTA e-book - pages 202-216 (poverty reduction)



Discussion and practical tasks for students can be selected from: SUSTA e-book - page 213 (poverty reduction)

Case studies in: SUSTA casebook - pages: 117-123; 153-160; 278-292

4.3. Alternative retail formats, responsible packaging, and warranties for durables (1 hour)

Basics for lecture preparation: SDEV e-book – pages 38-39 (types of alternative retail formats); SUSTA e-book - pages 307-321 (role of warranties)

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 320 (role of warranties)

Case studies in: SUSTA casebook - pages: 307-312; SDEV e-book – pages: 227-236

4.4. Green supply chain strategies in practice (2 hours)

Teachers can use case studies in:

SUSTA casebook - general food production - pages: 161-171; chocolate production – pages: 172-183 and 184-196; snack production - pages: 197-201; air pollution problem in transport – pages: 264-277; warehouses and robotization - pages: 294-306

SDEV e-book – the general role of sustainability in corporate strategy – pages: 71-82; the role of sustainability on operational level – pages: 53-68

5. DISCLOSURES IN SUSTAINABLE BUSINESS PRACTICES (6 hours)

5.1. Regulatory framework on non-financial reporting (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 385-403

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 398

5.2. Analysis of social responsibility reporting standards and frameworks (2 hours)

Basics for lecture preparation: SUSTA e-book - pages 404-421

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 418

5.3. Transparent non-financial reporting and audit of non-financial reports (plans vs. results) (2 hours)

Basics for lecture preparation: SUSTA e-book - pages 422-470

Discussion and practical tasks for students can be selected from: SUSTA e-book – pages 442 and 465-466



5.4. Green finances (bonds and loans) (1 hour)

Basics for lecture preparation: SUSTA e-book - pages 445-470

Discussion and practical tasks for students can be selected from: SUSTA e-book - page 465-466

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