CONSTRUCTOR UNIVERSITY

Study Program Handbook

Minor in Sustainability

Subject-specific Examination Regulations for a Minor in Sustainability (Fachspezifische Prüfungsordnung)

The subject-specific examination regulations for a Minor in Sustainability are defined by this program handbook and are valid only in combination with the General Examination Regulations for Undergraduate degree programs (General Examination Regulations = Rahmenprüfungsordnung).

Valid for all students starting their studies in Fall 2025

Version	Valid as of	Decision	Details
Fall 2025- V1.1		Feb 02, 2026	Implementation of Examination Concept according to policies.
Fall 2025 – V1	Sep 01, 2025	April 9, 2025	Originally approved by the Academic Senate

CONTENTS

1   Program Overview

1.1   Concept

1.1.1   The Constructor University Educational Concept

Constructor University aims to educate students for both an academic and a professional career by emphasizing three core objectives: academic excellence, personal development, and employability to succeed in the working world. Constructor University offers excellent research driven education experience across disciplines to prepare students for graduate education as well as career success by combining disciplinary depth and interdisciplinary breadth with supplemental skills education and extra-curricular elements. Through a multi-disciplinary, holistic approach and exposure to cutting-edge technologies and challenges, Constructor University develops and enables the academic excellence, intellectual competences, societal engagement, professional and scientific skills of tomorrows leaders for a sustainable and peaceful future.

In this context, it is Constructor University's aim to educate talented young people from all over the world, regardless of nationality, religion, and material circumstances, to become citizens of the world who are able to take responsible roles for the democratic, peaceful, and sustainable development of the societies in which they live. This is achieved through a high-quality teaching as well as manageable study loads and supportive study conditions. Study programs and related study abroad programs convey academic knowledge as well as the ability to interact positively with other individuals and groups in culturally diverse environments. The ability to succeed in the working world is a core objective for all study programs at Constructor University, both in terms of actual disciplinary subject matter and also to the social skills and intercultural competence. Study-program-specific modules and additional specializations provide the necessary depth, interdisciplinary offerings and the minor option provide breadth while the university-wide general foundation and methods modules, optional German language and Humanities modules, and an extended internship period strengthen the employability of students. The concept of living and learning together on an international campus with many cultural and social activities supplements students' education. In addition, Constructor University offers professional advising and counseling.

Constructor University's educational concept is highly regarded both nationally and internationally. While the university has consistently achieved top marks over the last decade in Germany's most comprehensive and detailed university ranking by the Center for Higher Education (CHE), it has also been listed by one of the most widely observed university rankings, the Times Higher Education (THE) ranking. More details on the current ranking positions can be found at https://constructor.university/more/about-us.

1.1.2   Program Concept

As global concerns around climate change, biodiversity loss, resource depletion, economic and political instabilities, and social equity continue to grow, the need for sustainability-literate graduates across all fields becomes increasingly important. The Sustainability Minor is an interdisciplinary academic program designed to equip students with the knowledge, tools, and mindset needed to address complex environmental, social, and economic challenges. This minor

provides both a foundational understanding and practical approaches to sustainability, complementing any major, whether in the sciences, engineering, business, social sciences, or humanities. The asynchronous online format of the program makes it accessible to students from all Constructor University bachelor programs, except for those that do not include a minor track in their curriculum or support only specific minor subjects.

1.2 Specific Advantages of Sustainability at Constructor University

The Sustainability Minor at Constructor University offers a unique academic experience tailored for students to grasp the concept of sustainability. The program emphasizes both theoretical and practical aspects of sustainability, preparing students not only to understand sustainability challenges but also to develop innovative, actionable solutions. Its fully asynchronous online format allows students to engage with the material at their own pace, regardless of their major or timetable. The program is designed to be highly interdisciplinary, drawing on diverse areas of expertise to provide students with a well-balanced and integrated perspective. Constructor University's international learning environment further enriches discussions on global sustainability issues, exposing students to diverse viewpoints and real-world case studies from around the world. The asynchronous nature of the program is supported by learning materials presented in an innovative, informative, and engaging manner, combining recorded lectures, interactive videos, reading materials, quizzes, games, and tutorials.

1.3 Program-Specific Educational Aims

1.3.1 Qualification Aims

The EU's higher education policy on sustainability focuses on integrating sustainability into all aspects of education and research. In this context, the Sustainability Minor aims to equip students from all disciplines with a foundational understanding of sustainability principles and the skills needed to critically engage with real-world environmental, economic, and social challenges. Graduates will be aware of global sustainability issues and prepared to become responsible, informed, and proactive contributors to sustainable development. They will be well-prepared for a thriving job market and for pursuing postgraduate studies in many growing fields related to sustainability. Particular attention is paid to the following components:

- Theoretical Background: Core Concepts of Sustainability
- Systems and Life Cycle Thinking
- Practical Frameworks
- Assessing Sustainability Performance

1.3.2   Intended Learning Outcomes

By the end of the study program, students will be able to:

1. Demonstrate a foundational understanding of sustainability principles and their relevance to current global challenges.

2. Analyze and interpret global environmental and societal transformations.

3. Understand interconnections and feedback loops in natural and human systems using concepts from systems thinking.

4. Critically assess global, national, and regional sustainability policies and agreements.

5. Demonstrate an understanding of practical approaches of sustainability and apply them to analyze and improve organizational practices.

6. Understand and apply sustainability frameworks and assessment tools to support decision-making in diverse scenarios.

7. Translate technical sustainability assessment findings into accessible, actionable recommendations through effective communication.

8. Reflect critically on the limitations and applicability of different sustainability frameworks and assessment methodologies.

9. Engage in responsible decision-making by integrating sustainability thinking into professional and civic life.

1.4   Target Group

The Minor in Sustainability is designed to be relevant for undergraduate students who want to integrate sustainability into their field-specific expertise. There are no specific prerequisites. The program is open for all Bachelor students in all programs, except for those programs excluding a minor track in their curricular structure or supporting only specific minor subjects.

1.5   More Information and Contact

For more information on the study program please contact the Study Program Coordinator:

Dr. Maheshi Danthurebandara

mdanthureb@constructor.university

or visit our program website

Major/Minor combination | Constructor University

For more information on Student Services please visit:

https://constructor.university/student-life/student-services

2　The Curricular Structure

2.1　General

The curricular structure provides multiple elements for enhancing employability, interdisciplinarity, and internationality. The unique CONSTRUCTOR Track, offered across all undergraduate study programs, provides comprehensive tailor-made modules designed to achieve and foster career competency. Additionally, a mandatory internship of at least two months after the second year of study and the possibility to study abroad for one semester give students the opportunity to gain insight into the professional world, apply their intercultural competences and reflect on their roles and ambitions for employment and in a globalized society.

All undergraduate programs at Constructor University are based on a coherently modularized structure, which provides students with an extensive and flexible choice of study plans to meet the educational aims of their major as well as minor study interests and complete their studies within the regular period.

The framework policies and procedures regulating undergraduate study programs at Constructor University can be found on the website (https://constructor.university/student-life/student-services/university-policies).

2.2　The Constructor University 4C Model

Constructor University offers study programs that comply with the regulations of the European Higher Education Area. All study programs are structured according to the European Credit Transfer System (ECTS), which facilitates credit transfer between academic institutions. The three-year under-graduate program involves six semesters of study with a total of 180 ECTS credit points (CP

The undergraduate curricular structure follows an innovative and student-centered modularization scheme - the 4C Model. It groups the disciplinary content of the study program in three overarching themes, CHOICE-CORE-CAREER according to the year of study, while the university-wide CONSTRUCTOR Track is dedicated to multidisciplinary content dedicated to methods as well as intellectual skills and is integrated across all three years of study.
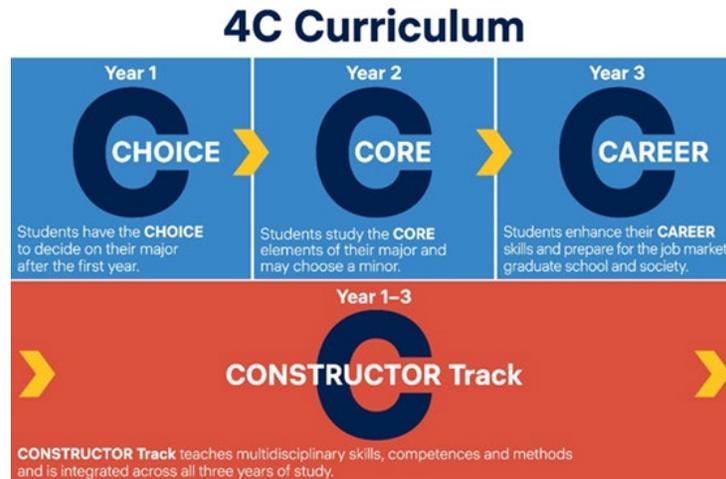
Figure 1: The Constructor University 4C-Model

2.3   Module Requirements for a Minor in Sustainability

A minor in Sustainability requires 30 CP. The option to obtain a minor in Sustainability is pictured in the schematic study plan. It includes the following CHOICE and CORE modules:

- CHOICE Module: Introduction to Sustainability (7.5 CP)
- CHOICE Module: Global Change and Systems Thinking (7.5 CP)
- CORE Module: Circular Economy (7.5 CP)
- CORE Module: Sustainability Assessments (7.5 CP)

2.4 Schematic Study Plan for a Minor in Sustainability

Minor in Sustainability (30 CP)

4th semester	**Sustainability Assessments** (m, 7.5 CP)
3rd semester	**Circular Economy** (m, 7.5 CP)
2nd semester	**Global Change and Systems Thinking** (m, 7.5 CP)
1St semester	**Introduction to Sustainability** (m, 7.5 CP)
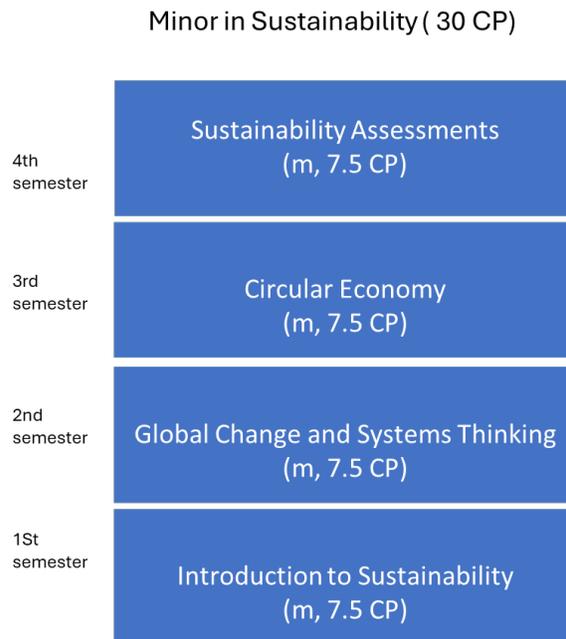
m = mandatory

Figure 2:

Schematic Study Plan for Minor in Sustainability

3   Minor in Sustainability Undergraduate Program Regulations

3.1   Scope of these Regulations

The regulations in this handbook are valid for all students who entered their undergraduate studies at Constructor University in Fall 2025. In case of a conflict between the regulations in this handbook and the general Policies for Bachelor Studies, the latter applies (https://constructor.university/student-life/student-services/university-policies).

In exceptional cases, certain necessary deviations from the regulations of this study handbook might occur during the course of study (e.g., change of the semester sequence, assessment type, or the teaching mode of module).

Updates to Study Program Handbooks are based on the policies approved by the Academic Senate on substantial and nonsubstantial changes to study programs. Students are integrated in the decision-making process through their respective committee representatives. All students affected by the changes will be properly informed.

In general, Constructor University reserves therefore the right to change or modify the regulations of the program handbook also after its publication at any time and in its sole discretion.

3.2   Examination Concept

According to the Policies for Bachelor and Master studies, modules generally carry at least five ECTS. Each program ensures appropriate examination frequency and organization, justified in an examination concept and regularly reviewed with student involvement.

Constructor University's examination concept follows the principle of Constructive Alignment (Biggs, 1996), ensuring that learning outcomes, activities, and assessments are consistently aligned: students learn what is intended, and assessments both measure and shape learning. Where one assessment cannot cover all Intended Learning Outcomes (ILOs) complementary forms could be used (e.g., written exams plus lab reports). Module descriptions map ILOs to assessments.

In specific contexts, such as asynchronous online modules or courses emphasizing student engagement, Module Achievements or other types of formative assessments may support competence-oriented assessment.

Student feedback, embedded in the Quality Assurance System (QAS), systematically monitors workload, competence orientation, and alignment of ILOs and assessments. Student surveys and feedback are regulated in the Policy for student surveys and evaluations.

3.3   Degree

After successful completion, the minor in Sustainability will be listed on the final transcript under PROGRAM OF STUDY and BA/BSc – [name of the major] as "(Minor: Sustainability)."

4   Module Descriptions

4.1.1   Introduction to Sustainability

Module Name	Introduction to Sustainability
Module Code	2025-SUS-101
Module ECTS	7.5
Program Owner	2025-Minor-Sustainability-BA (Minor in Sustainability)
Module Coordinator	Dr. Maheshi Danthurebandara

Study Semester		
Program	**Semester**	**Status**
2025-Minor-Sustainability-BA Minor in Sustainability	1	Mandatory

Student Workload	
Exam Preparation	20
Interactive Learning	57.2
Asynchronous Self Study	52.5
Independent Study	57.5
Total Hours	**187.2**

Module Components	Number	Type	CP
Introduction to Sustainability	2025-SUS-101-A	Lecture	7.5

Module Description

This module serves as a foundational introduction to sustainability, oCering students a broad yet insightful overview of key concepts, principles, and policies of sustainability. Designed as a 'big picture' module, it encapsulates the environmental, social, and economic dimensions of sustainability, emphasizing the interconnectedness of global systems. It lays the groundwork for more specialized sustainability studies, equipping students with the knowledge needed to engage with sustainability challenges in their academic and professional journeys.

Students will primarily explore the need for sustainability, its evolution, key frameworks and principles, sustainability assessments, policy and governance, and the integration of

sustainability into businesses. The module examines major global challenges, including climate change, resource depletion, biodiversity loss, economic and political instabilities, and social inequalities, highlighting the role of sustainability in addressing these issues.

The module introduces the evolution of sustainability, from the Brundtland Report to the United Nations' Sustainable Development Goals (SDGs). It also presents sustainability frameworks and concepts, covering both traditional and modern sustainability models, such as the three-pillar model, nested sustainability, the triple bottom line, planetary boundaries, the doughnut economy, life cycle thinking, strong and weak sustainability and the circular economy. Additionally, the module emphasizes the importance of sustainability assessments and policies at global, national, and regional levels in promoting a sustainable future. It concludes with corporate sustainability, focusing on how businesses can integrate sustainability concepts into their operations.

Intended Learning Outcomes

No	Competence	ILO
1	Explain	Explain the need for sustainability in the modern world
2	Discuss	Discuss the frameworks and principles of sustainability, providing appropriate examples
3	Describe	Describe the necessity and types of sustainability assessments required for a given scenario
4	Discuss	Discuss global, national, and regional sustainability policies and agreements
5	Explain	Explain how sustainability concepts can be applied in businesses

Indicative Literature

- Blackburn, W. R. (2015). The Sustainability Handbook: The Complete Management Guide to Achieving Social, Economic and Environmental Responsibility (2nd ed.). Routledge
- Brundtland Commission. (1987). Our Common Future. United Nations World Commission on Environment and Development. https://sustainabledevelopment.un.org/content/documents/5987our-common- future.pdf
- Robertson, M. (2021). Sustainability Principles and Practice (3rd ed.). Routledge
- Stockholm Resilience Centre. Planetary Boundaries Framework. https://www.stockholmresilience.org/research/planetary-boundaries.html
- United Nations. Sustainable Development Goals. https://sdgs.un.org/goals

Entry Requirements

Prerequisites	None
Co-requisites	None
Additional Remarks	None

Assessment and Completion

Module Component	Examination Type	Duration or Length	Weight (%)	Minimum for Pass	ILOs
Introduction to Sustainability	Written Examination	180	100		All

Module Achievement

The module achievement ensures student engagement with the coursework in online mode and confirms that a sufficient level of logistics knowledge has been obtained before attempting the exam. The module achievement requires the completion of class learning activities (quizzes and assignments). There are 10 activity blocks, each worth 100 points. To obtain the module achievement (and thus be eligible to sit for the final exam), students must achieve an average score of at least 50 points. All 10 activity blocks will be considered when calculating the average score; therefore, it is important to complete and submit all activities before the specified deadline. The module achievement is assessed on a pass/non-pass basis and does not affect the overall module grade. An additional deadline is provided before the make-up examination period to allow students to resubmit work and make up for missing points.

Module Name	Global Change and Systems Thinking
Module Code	2025-SUS-102
Module ECTS	7.5
Program Owner	2025-Minor-Sustainability-BA (Minor in Sustainability)
Module Coordinator	Dr. Maheshi Danthurebandara

Study Semester		
Program	Semester	Status
2025-Minor-Sustainability-BA Minor in Sustainability	2	Mandatory

Student Workload	
Interactive Learning	57.5
Exam Preparation	20
Asynchronous Self Study	52.5
Independent Study	57.5
Total Hours	**187.5**

Module Components	Number	Type	CP
Global Change and Systems Thinking	2025-SUS-102-A	Lecture	7.5

Module Description

This module explores the interconnected nature of environmental and societal changes through the lens of systems thinking. It provides students with a holistic understanding of how natural and human-made systems interact, contributing to complex global challenges such as climate change, loss of biodiversity, and socio-economic transformations.

The module begins with an introduction to systems thinking. Topics include key terminology in systems theory, graphical representations, system archetypes, mathematical models of system dynamics, equilibria and stability, complex adaptive systems, emergence, resilience, system evolution and change. In the next part of the module, students will examine the global change of natural systems, focusing on the impacts of climate change, biodiversity loss, and ecosystem degradation. The module then shifts to the global change of societal systems, addressing the role of human activities in shaping global transformations. Finally, the module integrates these

perspectives by comparing natural and societal systems, emphasizing their interdependencies. Students will explore cascading impacts, and multi-scale approaches to sustainability, from local to global levels. Through case studies, they will analyze real-world examples of integrated sustainable solutions that address both environmental and societal challenges.

Intended Learning Outcomes

No	Competence	ILO
1	Numerate	Numerate and describe key concepts of system thinking
2	Explain	Explain the global change of natural systems focusing on the impacts of climate change, biodiversity loss, and ecosystem degradation
3	Explain	Explain the global change of societal systems addressing the role of human activities in shaping global transformations
4	Discuss	Discuss sustainable solutions that address both environmental and societal global challenges

Indicative Literature

- Donella H. Meadows, Thinking in Systems, Chelsea Green Publishing (2008)
- Sandrine Dixson-Deceive et al, Earth for All: A Survival Guide for Humanity, New Society Publishers (2022)
- United Nations Environmental Programme (2015). One Planet Many People. Retrieved from: https://na.unep.net/atlas/onePlanetManyPeople/book.php
- William F. Ruddiman: Earth's Climate – Past and Future. New York, W.H. Freeman and Company (2008)

Entry Requirements

Prerequisites	None
Co-requisites	None
Additional Remarks	None

Assessment and Completion

Module Component	Examination Type	Duration or Length	Weight (%)	Minimum for Pass	ILOs
Global Change and Systems Thinking	Written Examination	180 minutes	100	50% of the assignments need to be	All intended learning outcomes

				correctly answered	of the module.

Module Achievement

The module achievement ensures student engagement with the coursework in online mode and confirms that a sufficient level of logistics knowledge has been obtained before attempting the exam. The module achievement requires the completion of class learning activities (quizzes and assignments). There are 10 activity blocks, each worth 100 points. To obtain the module achievement (and thus be eligible to sit for the final exam), students must achieve an average score of at least 50 points. All 10 activity blocks will be considered when calculating the average score; therefore, it is important to complete and submit all activities before the specified deadline. The module achievement is assessed on a pass/non-pass basis and does not affect the overall module grade. An additional deadline is provided before the make-up examination period to allow students to resubmit work and make up for missing points.

4.1.3 Circular Economy

Module Name	Circular Economy
Module Code	2025-SUS-201
Module ECTS	7.5
Program Owner	2025-Minor-Sustainability-BA (Minor in Sustainability)
Module Coordinator	Dr. Maheshi Danthurebandara

Study Semester		
Program	Semester	Status
2025-Minor-Sustainability-BA Minor in Sustainability	3	Mandatory

Student Workload	
Asynchronous Self Study	52.5
Interactive Learning	57.5
Exam Preparation	20
Independent Study	57.5
Total Hours	**187.5**

Module Components	Number	Type	CP
Circular Economy - Theory	2025-SUS-201-A	Lecture	5
Circular Economy - Case Studies	2025-SUS-201-B	Lecture	2.5

Module Description

This module elaborates on one of the practical approaches to sustainability. It provides an in-depth understanding of the circular economy as an alternative to the traditional linear economic model. The module covers key principles, strategies, and implementation tools for transitioning toward a resource-efficient, regenerative economy, with a focus on material flows, product life cycle management, resource efficiency, waste valorization, pollution prevention, industrial symbiosis, and industrial ecology. It also emphasizes circular economy policy frameworks, challenges and opportunities, business models, and technological innovations.

Students will engage with case studies related to different sectors, such as mining, construction, agriculture, energy, and more, and will gain insights into the economic, environmental, and social implications of circular economy practices across industries. By the end of this module, students will be equipped with both theoretical knowledge and practical skills necessary to contribute to the implementation and scaling of circular economy principles in various organizational and policy contexts.

A single assessment type cannot sufficiently test all intended learning outcomes. The written examination assesses understanding of theoretical knowledge and core principles, whereas the project report evaluates sufficient depth and validity of both theoretical and practical aspects.

Intended Learning Outcomes

No	Competence	ILO
1	Explain	Explain the concept, principles, and drivers of the circular economy
2	Evaluate	Evaluate circular economy practices across industries
3	Develop	Develop solutions for implementing circular practices in organizations
4	Analyze	Analyze the environmental, economic, and social impacts of linear versus circular models considering life cycle thinking approach
5	Discuss	Discuss policy and regulatory frameworks supporting circular economy transitions

Indicative Literature

- Chertow, M. R. (2007). Uncovering industrial symbiosis. Journal of Industrial Ecology, 11(1), 11–30. https://doi.org/10.1162/jiec.2007.1110
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy – A new sustainability paradigm?. Journal of Cleaner Production, 143, 757– 768. https://doi.org/10.1016/j.jclepro.2016.12.048
- Graedel, T. E., & Allenby, B. R. (2003). Industrial Ecology (2nd ed.). Prentice Hall. ISBN: 978-0130467133
- Webster, K. (2017). The Circular Economy: A Wealth of Flows (2nd ed.). Ellen MacArthur Foundation Publishing

Entry Requirements

Prerequisites	None
Co-requisites	None
Additional Remarks	None

Assessment and Completion

Module Component	Examination Type	Duration or Length	Weight (%)	Minimum for Pass	ILOs
Circular Economy - Theory	Written Examination	120 Minutes	65	50% of the assignments need to be	All

				correctly answered	
Circular Economy - Case Studies	Project Report	3000 words per group report	35		All

Module Achievement

The module achievement ensures student engagement with the coursework in online mode and confirms that a sufficient level of logistics knowledge has been obtained before attempting the exam. The module achievement requires the completion of class learning activities (quizzes and assignments). There are 6 activity blocks, each worth 100 points. To obtain the module achievement (and thus be eligible to sit for the final exam), students must achieve an average score of at least 50 points. All 6 activity blocks will be considered when calculating the average score; therefore, it is important to complete and submit all activities before the specified deadline. The module achievement is assessed on a pass/non-pass basis and does not affect the overall module grade. An additional deadline is provided before the make-up examination period to allow students to resubmit work and make up for missing points.

4.1.4 Sustainability Assessments

Module Name	Sustainability Assessments
Module Code	2025-SUS-202
Module ECTS	7.5
Program Owner	2025-Minor-Sustainability-BA (Minor in Sustainability)
Module Coordinator	Dr. Maheshi Danthurebandara

Study Semester		
Program	Semester	Status
2025-Minor-Sustainability-BA Minor in Sustainability	4	Mandatory

Student Workload	
Asynchronous Self Study	52.5
Interactive Learning	57.5
Exam Preparation	20
Independent Study	57.5
Total Hours	**187.5**

Module Components	Number	Type	CP
Sustainability Assessments - Theory	2025-SUS-202-A	Lecture	5
Sustainability Assessments - Case Studies	2025-SUS-202-B	Lecture	2.5

Module Description

The module emphasizes the importance of performing sustainability assessments and the interconnectedness of environmental, economic, and social impact assessments. It provides students with a comprehensive understanding of the various tools and methodologies used to evaluate the sustainability of systems, projects, and policies. By exploring concepts such as Life Cycle Assessment (LCA), Environmental Impact Assessment (EIA), Social Life Cycle Assessment (SLCA), Life Cycle Costing (LCC), Cost-Benefit Analysis (CBA) and Multi Criteria Decision Making (MCDM), students will gain the knowledge necessary to critically analyze environmental, economic, and social aspects of sustainability. The module encourages students to apply these assessment tools in practical, real-world contexts, helping them to understand how sustainability metrics can guide decision-making processes in both private and public sectors.

Throughout the module, students will be encouraged to reflect on how these assessments can contribute to achieving the UN Sustainable Development Goals (SDGs) and address pressing global sustainability challenges. By the end of this module, students will have acquired the technical skills

to perform sustainability assessments and critically assess their outcomes, enabling them to contribute to sustainable practices and solutions in their future careers.

A single assessment type cannot sufficiently test all intended learning outcomes. The written examination assesses understanding of theoretical knowledge and core principles, whereas the project report evaluates sufficient depth and validity of both theoretical and practical aspects.

Intended Learning Outcomes

No	Competence	ILO
1	Discuss	Discuss key concepts of sustainability assessment
2	Apply	Apply sustainability assessment methodologies to evaluate the environmental, social, and economic dimensions of systems, products, or policies
3	Communicate	Communicate sustainability assessment findings eCectively through written reports and presentations, translating technical results into actionable recommendations
4	Evaluate	Evaluate the strengths and limitations of diCerent sustainability assessment methods

Indicative Literature

- Baumann, H., & Tillman, A.-M. (2004). The Hitch Hiker's Guide to LCA: An Orientation in Life Cycle Assessment Methodology and Application. Studentlitteratur
- Benoît, C., & Mazijn, B. (Eds.). (2009). Guidelines for Social Life Cycle Assessment of Products. UNEP/SETAC Life Cycle Initiative. https://www.lifecycleinitiative.org/wp-content/uploads/2012/12/2009%20-%20Guidelines%20for%20sLCA%20-%20EN.pdf
- Cinelli, M., Coles, S. R., & Kirwan, K. (2014). Analysis of the potentials of Multi Criteria Decision Analysis methods to conduct sustainability assessment. Ecological Indicators, 46, 138–148
- Hauschild, M., Rosenbaum, R., & Olsen, S. (Eds.). (2018). Life Cycle Assessment: Theory and Practice. Springer
- Muthu, S. S. (Ed.). (2023). Life Cycle Costing. Springer Nature Switzerland. Environmental Footprints and Eco-design of Products and Processes series. https://www.springerprofessional.de/en/life-cycle-costing/26144904

Entry Requirements

Prerequisites	None
Co-requisites	None
Additional Remarks	None

Assessment and Completion

Module Component	Examination Type	Duration or Length	Weight (%)	Minimum for Pass	ILOs
Sustainability Assessments - Theory	Written Examination	120 Minutes	65	50% of the assignments need to be correctly answered	All
Sustainability Assessments - Case Studies	Project Report	3000 words per group report	35	50% of the assignments need to be correctly answered	All

Module Achievement

The module achievement ensures student engagement with the coursework in online mode and confirms that a sufficient level of logistics knowledge has been obtained before attempting the exam. The module achievement requires the completion of class learning activities (quizzes and assignments). There are 6 activity blocks, each worth 100 points. To obtain the module achievement (and thus be eligible to sit for the final exam), students must achieve an average score of at least 50 points. All 6 activity blocks will be considered when calculating the average score; therefore, it is important to complete and submit all activities before the specified deadline. The module achievement is assessed on a pass/non-pass basis and does not affect the overall module grade. An additional deadline is provided before the make-up examination period to allow students to resubmit work and make up for missing points.

5.1 Intended Learning Outcomes Assessment-Matrix

Minor in Sustainability	A	E	P	S	Introduction to Sustainability	Global Change and Systems Thinking	Circular Economy	Sustainability Assessment
Semester					1	2	3	4
Mandatory (m) for minor in sustainability					m	m	m	m
Credits					7.5	7.5	7.5	7.5
Program Learning Outcomes (Competencies*)	A	E	P	S				
1. Demonstrate a foundational understanding of sustainability principles and their relevance to current global challenges	X			X	X	X		
2. Analyze and interpret global environmental and societal	X			X		X		
3. Understand interconnections and feedback loops in natural and human systems using concepts from systems thinking.	X		X	X		X		
4. Critically assess global, national, and regional sustainability policies and agreements	X			X	X		X	
5. Demonstrate an understanding of practical approaches of sustainability and apply them to analyze and improve organizational practices	X	X		X			X	X
6. Understand and apply sustainability frameworks and assessment tools to support decision-making in diverse scenarios	X	X			X			X
7. Translate technical sustainability assessment findings into accessible, actionable recommendations through effective communication	X	X	X	X				X
8. Reflect critically on the limitations and applicability of different sustainability frameworks and assessment	X		X		X		X	X
9. Engage in responsible decision-making by integrating sustainability thinking into professional and civic life	X	X	X	X	X	X	X	X
Assessment Type								
Written examination					X	X	X	X
Term paper								
Essay								
Project report							X	X
Poster presentation								
Laboratory report								
Program code								
Oral examination								
Presentation								
Practical assessments								
Project assessments								
Portfolio assessments								
Thesis								
Module achievements					X	X	X	X

*Competencies: A-scientific/academic proficiency; E-competence for qualified employment; P-development of personality; S-competence for engagement in society