

# SEM2ILV - Sustainability and Environmental Management

ECTS: 6 | Contact hours per week: 3 |

Semester: 2 | SS25

Lecturer(s) / Lehrende(r)

Dr. Karl Michael HÖFERL

## Learning outcomes

At the end of this module students are able to:

- explain and apply environmental standards and concepts such as biodiversity, ecosystem dynamics and the impact of human activities on natural systems,
- explain terms such as carbon neutrality, green labelling and greenwashing and the transition away from fossil fuels, particularly in the context of Scope 3 emissions in the supply chain,
- elaborate on the fundamentals of environmental accounting, emphasizing the significance of effective communication regarding environmental matters and performance indicators, and adeptly use globally acknowledged standards for environmental management in simulated environments,
- differentiate the responsibilities associated with waste management and exhibit a foundational comprehension of waste legislation, regulations, waste minimization techniques, recycling practices, and disposal methodologies, carry out and evaluate documentation and reporting requirements, including the formulation of waste management plans.

## **Course description**

Environmental Management Systems (EMS):

Frameworks ISO 14001 or EMAS

Implemention of an EMS

Environmental aspects, objectives, operational control, and continual improvement"

· Environmental Auditing:

Principles of Auditing

Best practices of environmental auditing

· Environmental Standards:

Carbon Neutrality

Biodiversity

Scope 3 Emissions

· Labels:

Green labelling and greenwashing

Quality management

· Environmental Risk Assessment:

Methodologies for determining environmental risks associated with pollutants or human activities

Probability analyses and hazard identification

· Waste Management:

Waste reduction, resource recovery, effective disposal procedures

Principles of the circular economy

Waste as a potential resource

· Environmental Legislation:

Key environmental laws and regulations

National legislation approaches vs. international treaty structures.

Environmental and Sustainability Reporting:
 Sustainability reporting frameworks and legal requirements

# **Teaching concept**

To achieve the learning outcomes, students will engage in a variety of teaching methods:

**Chalk-talk sessions with discussions:** will provide a platform for students to grasp and analyse environmental standards, labels and concepts such as biodiversity, ecosystem dynamics, and human impacts on natural systems.

**Exercises:** allow students to delve deeper into terms like carbon neutrality, fossil fuel transition, Scope 3 emissions, and green labelling and greenwashing fostering a comprehensive understanding within the supply chain context. Moreover, through report analysis and evaluation students can differentiate the responsibilities associated with waste management through interactive exercises, gaining insight into waste legislation, minimization techniques, recycling practices, and disposal methodologies.

**Self-study sessions:** will empower students to explore the fundamentals of environmental accounting, and the utilization of globally recognized standards for environmental management in simulated scenarios.

#### Planned timetable:

Session	n CH_Ni	Date	Time	Room	Content
EH1	1	01.03.2025	09:00 - 11:45	G1.2.24	Intro: Sustainability & Environmental Management
	2				Recap sustainability, social ecology, antropocene
	3				Planning & management, formal & informal
EH2	4	01.03.2025	14:00 - 15:45	G.2.01	Challanges of the Antropocene
	5				From linear to adaptive managmement
EH3	6	22.03.2025	09:00 - 11:45	VC	Environmental Protection & Governance
	7				History, approaches, goals & actors
	8				Supranational & national policies
EH4	9	22.03.2025	12:45 - 16:15	VC	Rational legacies: Assessing environmental impacts

	10 11 12		Environmental Impact Assessment (EPA) Strategic Environmental Assessment (SEA) Life Cycle Assessment (LCA)
EH5	13	28.03.2025 14:00 - VC	From CSR to ESG
	14		Corporate Social Responsibility (CSR) Environmental,
	15		Social, and Governance (ESG) Environmental
EH6	16	29.03.2025 09:00 - G1.1.20	Management Systems (EMS) & Standards I
	17		EMAS, ISO 14000, etc.
	18		Ctc.
EH7	19	29.03.2025 12:45 - G1.1.20	Standards II
	20		EMAS, ISO 14000, etc.
	21		Sustainability- centered standards
	22		
EH8	23	04.04.2025 17:30 - P.2.22	Public Participation and Stakeholder Engagement
	24		Motivation, stakeholder, participation
	25		Catergorisation schemes, participation formats
EH9	26	05.04.2025 12:00 - G.3.03	EU Taxonomy & Corporate Sustanability Reporting Directive (CSRD)

	27 28		Policy background, history, goals, implementation Taxonomy, actory, instruments EU Taxonomy &
EH10	29	26.04.2025 09:00 - VC	Corporate Sustainability Reporting Directive (CSRD)
	30		Process, tasks, impacts, risks, opportunities
	31		materiality, governance
EH11	32	26.04.2025 12:30 - VC	EU Taxonomy & Corporate Social Responsiblity Directive(CSRD)
	33		Critically discussion of examples
	34		
EH12	35	10.05.2025 09:00 - G1.1.24	Social Dimension of Sustainability Management
	36		Environmental justice, child labour
	37		Diversity & inclusion
EH13	38	10.05.2025 12:30 - G1.1.20	Implementation & Greenwashing
	39		Challanges during implementation
	40		Implications
EH14	41	27.06.2025 14:00 - P.2.09	Written Exam
	42		with lots of questions ©

#### 1. attempt

Submission (Deliverable) (Intermediate exam) written / - / 40,00%

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Written Exam biz: Examiner (Intermediate exam)

written / 90 min / 60,00%

SEM2: 27.06.2025 14:00 - 16:15 (P.1.04)

#### 2. attempt

Written Exam biz: Examiner (Prüfung) written / 90 min / 100,00%

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## Self Study Time / Selbststudienzeit\*

118,5 hours per semester / Stunden pro Semester

\* The "workload" of a course comprises course attendance as well as all work necessary to complete the course (course preparation), individual study, group work, research, assignments, exam preparation etc. (= Self-study time). The workload is expressed in ECTS (1 ECTS = 25 hours).

\* Die "workload" für die positive Absolvierung einer Lehrveranstaltung umfasst die Präsenzzeiten sowie jene Zeiten, die für individuelle Vorbereitung, Gruppenarbeiten, Recherche, Verfassen von Arbeiten, Prüfungsvorbereitung etc. notwendig sind (= Selbststudienzeit). Die "workload" wird in ECTS ausgedrückt (1 ECTS = 25 Stunden).

## Readings & media

European Financial Reporting Advisory Group. (n.d.). *ESRS* implementation guidance documents. Retrieved 25 February 2025, from <a href="https://www.efrag.org/en/projects/esrs-implementation-guidance-documents">https://www.efrag.org/en/projects/esrs-implementation-guidance-documents</a>

Mitchell, B. (2019). Resource and environmental management (3rd ed.). Oxford university press.

Theodore, M. K., & Theodore, L. (2021). *Introduction to Environmental Management* (2nd ed.). Taylor & Francis Group.