



Module Title	Circular Supply Chains
Code	MCCf223
Degree Programme	Master of Science – Circular Innovation and Sustainability
ECTS Credits	3
Workload	90 hours
Module Coordinator	Name: Prof. Dr. Jörg Grimm Phone: +41 (0) 32 321 62 71 Email: joerg.grimm@bfh.ch Address: BFH – School of Engineering and Computer Science Quellgasse 21, 2501 Biel-Bienne
Lecturers	<ul style="list-style-type: none"> • Prof. Dr. Maria Franco Mosquera; TI • Prof. Dr. Jan Thomas Frecè; W
Entry Requirements	None
Competencies upon Completion	After completing the module, students will be able to: <ul style="list-style-type: none"> • apply the basic supply chain concepts and assess possibilities and limitations to design, govern, and manage supply chains along material and information flows; • assess and design supply chains in accordance with circular economy principles; • differentiate between Scope 1, Scope 2 and Scope 3 emissions and set Scope 3 organizational boundaries; • calculate GHG emissions and set Scope 3 reduction targets; • formulate the data and information-related needs for circular supply chain.
Content	<p>A profound understanding of supply chains and how they work is a prerequisite for realizing circular business models. This module starts with an initial examination of the characteristics of supply chains and their structures and stakeholders. The complexities and challenges in supply chains are addressed and basic approaches and practices of supply chain management are presented. As of today, linear supply chains dominate the global economy. Starting with approaches to shaping sustainable supply chains, current practices are highlighted, and limitations are considered.</p> <p>The module addresses the opportunities of Circular Economy principles to move linear supply chains towards circular supply chains through circular strategies. Key processes and systems incl. environmental impact assessment (Scope 3 accounting according to the Greenhouse Gas Protocol), information technology and data management, which enable the “Rs” in supply chains, are presented and discussed. The digital aspects of circular business models are discussed, with special focus on the gap between the digital and the analogue world and ways to, if not close the gap, at least diminish it.</p>

Teaching and Learning Methods	<ul style="list-style-type: none"> • Flipped classroom • Case studies • Guest speaker • Individual and group exercises • Learning videos
Competency Assessment	<p>Final written report (100%)</p> <p>Students who receive an insufficient grade of 3.5, are given the opportunity to carry out a <i>subsequent improvement</i> of written assignments defined by the module coordinator. The maximum grade that can then be obtained is 4. This still counts as the first attempt.</p>
Mode of Repetition	<p>Should a student fail the module, they have one more attempt. They may either:</p> <ul style="list-style-type: none"> • Submit a new assignment (individual report, 100%), defined by the <i>Module Coordinator</i>, for the next resit examination session. • Repeat the full module next time it is offered.
Format	2 lessons per week over 7 weeks
Attendance	Not mandatory
Module Type	Compulsory
Timing of the Module	Spring Semester, Calendar Weeks 08 to 14
Venue	Onsite Brückenstrasse 73, 3005 Bern
Literature	Literature and other resources will be provided before the start of the module via Moodle.
Language	English
Links to Other Modules	<ul style="list-style-type: none"> • MCCf213 Circular Business Models • MCCf243 Digitalization and Sustainability • MCCf443 Impact Assessment • MCCf453 Circular Design
Last Update	June 2024