



Module Title	Circular supply chain
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; Business School
Entry Requirements	None
Learning Outcomes and Competences	<p>After completing the module, students will be able to:</p> <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, information and financial 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.
Module Content	<p>A profound understanding of supply chains and how they work is a prerequisite for realizing circular business models. The 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. 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 analog world and ways to if not close the gap at least diminish it.</p>
Teaching / Learning Methods	<ul style="list-style-type: none"> • Flipped classroom • Case studies • Individual and group exercises • Learning videos

Assessment of Learning Outcome	Final written report (100%)
Conditions of assessment repetition	<p>In case of failure, students can either:</p> <ul style="list-style-type: none"> • Repeat the competence assessment at next re-examination period (as defined in the “Assessment of Learning Outcome”). • Retake the full module next time it is offered. <p>NB: in MSc CIS, failed modules can only be repeated once!</p>
Format	2 lessons per week over 7 weeks
Attendance & Compulsory session	Not compulsory
Timing of the module	Spring Semester
Venue	On-site
Location	Bern
Bibliography	Literature 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	May 2023