Module Title	Circular design
Code	MCCf453
Degree Programme	Master of Science – Circular Innovation and Sustainability
ECTS Credits	3
Workload	90 hours
Module Coordinator	Name: Prof. Dr. Frédéric Pichelin Phone: +41 (0) 32 344 03 42 Email: frederic.pichelin@bfh.ch Address: BFH – AHB, Route de Soleure 102, 2500 Biel-Bienne
Lecturers	• Prof. Dr. Aude Emilie Chabrelie; AHB • Dr. Eigenheer Andreas, AHB • Prof. Dr. Heiko Thömen, AHB • Aymeric David Niederhauser; TI
Entry Requirements	Prerequisite: • None Highly recommended: • MCCf223 Circular supply chain • MCCf443 Impact assessment
Learning Outcomes and Competences	After completing the module, students will be able to: • apply Eco-design and Circular-design methodology to their own project; • develop, with the help of specific tools, sustainable alternative products, processes, and strategies with a smart use of available resources; • create solutions which offer as many benefits as possible to all value chain stakeholders, while having the lowest possible environmental impact.
Module Content	Starting from an introduction of the history of eco-design you will learn step-by-step the methodology of eco-design and apply it to your own project for an increased circularity. In a first step you analyse the reference situation based on ecological LCA and life cycle costing, then thanks to circular design tools you create and select circular ideas for improvement of the situation, you will assess and improve them and finally communicate them successfully.
Teaching / Learning Methods	• Flipped classroom • Project-based learning • Case studies • Individual project • Learning videos

Assessment of Learning Outcome	Individual report on own project (100%) Possible specific improvement defined by the module coordinator if the grade is 3.5. The maximum grade that can be obtained with the specific improvement is 4.
Conditions of assessment repetition	In case of failure, students can either: • 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 **NB: in MSc CIS, failed modules can only be repeated once!**
Format	2 lessons per week over 7 weeks
Attendance & Compulsory session	Not compulsory but highly recommended
Timing of the module	Autumn Semester
Venue	On-Site
Location	Bern
Bibliography	• Van Doorsselaer, K, Koopmans, R: (2020). *Ecodesign a Life Cycle Approach for a sustainable future*. Carl Hanser Verlag GmbH ISBN 1569908621
Language	English
Links to other modules	• MCCf173 Circular use of materials • MCCf223 Circular supply chain • MCCf443 Impact assessment
Last Update	May 2023