Module title	**Sustainable Food Supply Chains**
Code	F4
Degree Programme	Master of Science in Life Sciences
Group	Food
Workload	3 ECTS (workload: 90 hours comprising 32 contact hours (= 42 lessons) plus 58 h self-study)
Module Coordinator	**Name**: Dr. Claudia Müller **Phone**: +41 (0)58 934 54 53 **Email**: claudia.mueller@zhaw.ch **Address**: ZHAW Life Sciences und Facility Management, Einsiedlerstrasse 35, 8820 Wädenswil
Lecturers	• Dr. Claudia Müller, ZHAW • Corinna Bolliger, ZHAW • Prof. Dr. Nathan Kunz, BFH • Dr. Evelyn Markoni, BFH • Dr. Matthias Meier, BFH • Further guest lecturers
Entry requirements	Knowledge of food technology and / or of agriculture, as well as basic knowledge of the principles of sustainability is highly recommended. Contents of an online module, which should be worked through before the course begins (time required approx. 6 hours).
Learning outcomes and competences	After completing the module, students will be able to: • explain sustainability in all dimensions; • illustrate how sustainability relates to the current food system; and • develop a sustainable food system model (= concept of a sustainable supply chain) for the future – one which is economically viable, environmentally friendly and socially acceptable – using the example of a selected food product.
Module contents	The main objective of the module is to understand the concept of sustainability-driven production of healthy food, using selected food products as examples. Therefore, the course will cover a holistic assessment of the food value chain and its sustainability performance regarding social, economic, environmental and health aspects and will include: • Sustainable agriculture (conventional versus organic); • Environmental assessment (life cycle analysis); • Economic basis of a sustainable business; • Social aspects; • Principles of a sustainable and healthy nutrition; • Technological challenges; and • Principles of process analysis
Teaching / learning methods	Students work in interdisciplinary groups, assessing and optimizing the supply chain of a selected food product to make it more sustainable.

	Experts provide inputs on the different sustainability dimensions and stages of the supply chain during the course. They address the corresponding challenges with respect to sustainability. Coaching sessions are offered during the module where students can discuss their questions with experts.
Assessment of learning outcome	**1. Individual grades (60%)** - Written exam (using SEB): 40% - Individual contributions within group work (written parts / analyses): 20% **2. Group grades (40%)** - Joint group work results and final presentation: 30% - Preparation for coaching sessions: 10%
Format	7 weeks
Timing of the module	Spring semester, CW 16-22
Venue	Blended learning format. Presence sequences take place in Olten.
Bibliography	Recommendations: Nguyen H., FAO (2018); Sustainable Food Systems – Concept and framework; http://www.fao.org/3/ca2079en/CA2079EN.pdf Willet W. et al. (2019); Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems; The Lancet, Vol 293: 447-492; https://www.thelancet.com/action/showPdf?pii=S0140-6736%2818%2931788-4
Language	English
Links to other modules	Potential similarities and links to E2 ‘Life Cycle Assessment’
Comments	There will be compulsory attendance on 3 days of the module (estimated: week 1, week 6 and week 7).
Last Update	19.08.2025