



Master in Life Sciences

A cooperation between
BFH, FHNW, HES-SO, ZFH

Module Title	Food Quality and Safety from Farm to Fork
Module Code	MCLs305
Module	FNH-1
Degree Programme	Master of Science in Life Sciences (MSLS)
ECTS Credits	5
Workload	150 h: Contact 60 h; Self-study 90 h
Module Coordinator	<p>Name Elisabeth Eugster</p> <p>Phone +41 31 910 21 16</p> <p>Email elisabeth.eugster@bfh.ch</p> <p>Address Bern University of Applied Sciences, School of Agricultural, Forest, and Food Sciences, Laenggasse 85, 3052 Zollikofen, Switzerland</p>
Lecturers	<ul style="list-style-type: none"> • Dr. Wolfram Brück (HES-SO, Sion) • Dr. Elisabeth Eugster (BFH-HAFL, Zollikofen) • Guest lecturers
Entry Requirements	Basics in food sciences (food processing, food chemistry and analysis, food microbiology). For candidates with a non-food-science background, please refer to chapters 2, 3, 6, 9 in Campbell-Platt (2009).
Learning Outcomes and Competencies	<p>After completing the module, students will be able to:</p> <ul style="list-style-type: none"> • discuss the key criteria of food quality and safety; • analyse food value chains with respect to food quality and safety (including food fraud), and specific aspects of sustainability; • suggest measures to meet product specifications; • communicate food quality issues to key stakeholders.
Module Content	Major food-quality traits such as safety, shelf-life, sustainability, sensory attributes, and nutritional value will be addressed. How these traits are affected during different stages of the food value chain in animal- and plant-based production systems will be discussed. Using practical food industry examples, measures that allow compliance with basic quality characteristics and strategies for optimisation will be further developed. A strong focus will be placed on food-safety-related challenges: potential hazards and risks, legal regulations, control measures, and management strategies. Practical case-study assignments on food-safety-related aspects will assist in applying learned strategies and translating them into specific settings.
Teaching and Learning Methods	<ul style="list-style-type: none"> • Self-study • Lectures and expert inputs • Teamwork on case studies supported by coaching
Assessment of Learning Outcomes	<p>Consists of:</p> <ul style="list-style-type: none"> • Case study 40% (team assessment) • Written exam 60% (individual grade)
Bibliography	<ul style="list-style-type: none"> • Campbell-Platt G, 2009. Food science and technology. Wiley Blackwell, Oxford. • Luning PA, Marcelis WJ, 2011. Food quality management. Technological and managerial principles and practices (Reprint). Wageningen Academic Publishers, Wageningen • Motarjemi Y, 2014. Food safety management. A practical guide for the food industry. Elsevier, Amsterdam
Language	English
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