Master in Life Sciences

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

Module	**Logistics, Supply Chain and Network Management**
Code	MSLS_AF-11
Degree Program	Master of Science in Life Sciences (MSLS)
ECTS Credits	5
Workload	150 h: Contact 50-60 h; Group Exercise 10 h; Self-study 80-90 h
Module Coordinator	**Name** Prof. Dr. Bernhard Pauli **Phone** +41 31 910 21 07 **Email** bernhard.pauli@bfh.ch **Address** Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences, Laenggasse 85, 3052 Zollikofen
Lecturers	• Bernhard Pauli • Ingrid Fromm • Guest lecturers
Entry Requirements	Knowledge on the principles of logistics, supply chains and economics / previous completion of AF-12 recommended
Learning Outcomes and Competences	After completing the module students will be able to: • handle important terms and theories of logistics properly • apply relevant tools in logistics in practical situations • describe relevant foundations of supply chain management (SCM) • to understand and apply key analytical constructs to describe value chains and market systems development for agricultural, food and timber markets • know best practice in value chain research methods • solve selected value chain management problems • transfer these topics to logistics, supply chain and network management in agriculture, food and forest industries, both in a national and international context • to overview the principles of the fourth industrial revolution and to understand their influence on the design of value networks
Module Content	The module focuses on supply chain management (SCM), logistics and network management of value chains in general (generic knowledge) and in agriculture, food and forest industries fourth industrial revolution in particular. **Supply Chain and Value Chain Management** • History and basic principles of SCM • Concept of value chain • Value-chain analysis: research and assessment methods • Cost analysis in SCM • Holistic approach to value chain management: coordination, decision-making, controlling, incentives and information in a system • Value chain approaches in international cooperation **Logistics** • Logistics in procurement, production, distribution and waste disposal • Logistics on strategic, tactical and operational level • Optimization of service level in logistics • Planning and controlling tools in logistics (PPS, PRP, MRPII, ERP, APS, etc.)

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- Methods (ABC/XYZ-analysis, procurement-portfolio, management of suppliers)
- Procurement and storage strategies
- Organizational forms and processes in logistics
- Analysis and optimization of processes in logistics
- International logistics

Analysis and Conclusion

- Discussion and reflection of logistics and SCM in agriculture, food and forest industries.

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Teaching / Learning Methods

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Lectures will help to structure the vast field of logistics, SCM, network and value chain management

During seminar and exercise lessons different tools used in Value Chain Management, international cooperation and logistics are presented, tested and critically discussed.

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Assessment of Learning Outcome

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1) Case study (group work) on value chain management (25%)
2) Case study (group work) on logistics (25%)
3) Final exam (50%)

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Bibliography

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Christopher M, 2012. Logistics and Supply Chain Management: creating value-adding networks (4th edition). FT Press, 288 p.

GTZ Eschborn (Deutsche Gesellschaft für Technische Zusammenarbeit), 2007. The Value Links Manual – The Methodology of Value Chain Promotion, First Edition.

Rushton A, Croucher P, Baker P, 2010. The Handbook of Logistics & Distribution Management (4th edition). Kogan Page, London/Philadelphia/New Delhi, 636 p.

Kaplinsky, Raphael and Morris, Mike (2002). A Handbook for Value Chain Research. Institute of Development Studies.

For case studies and further reading, additional documents will be made available on Moodle one month before the start of the module.

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Language

</td><td>English</td></tr>
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Comments

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The sequences with guest lecturers, the presentations of case studies and the excursion to Krono Swiss Menznau (Bernhard Pauli) are compulsory for students. The detailed schedule with the dates of the compulsory sequences will be uploaded on Moodle four weeks before the start of the module.

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<tr><td>Last Update</td><td>21.03.2023 / Bernhard Pauli</td></tr>
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