## Module: Logistics, Supply Chain and Network Management

<table>
<thead>
<tr>
<th>Code</th>
<th>MSLS_AF-11</th>
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<tbody>
<tr>
<td>Degree Program</td>
<td>Master of Science in Life Sciences (MSLS)</td>
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<tr>
<td>ECTS Credits</td>
<td>5</td>
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<tr>
<td>Workload</td>
<td>150 h: Contact 50-60 h; Group Exercise 10 h; Self-study 80-90 h</td>
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### Module Coordinator
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### Lecturers
- Dr. Filippo Lechthaler
- Dr. Bernhard Pauli
- 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

### 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 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.)
- 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.

## Teaching / Learning Methods
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.

## Assessment of Learning Outcome
1) Case study (group work) on value chain management (25%)
2) Case study (group work) on logistics (25%)
3) Final exam (50%)

## Bibliography

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

## Language
English

## Comments
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.

## Last Update
25.03.2019 / Filippo Lechthaler