



# Master in Life Sciences

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

<b>Module</b>	<b>Expansion of Personal Scientific Knowledge</b>
<b>Code</b>	MSLS_AF-21
<b>Degree Program</b>	Master of Science in Life Sciences (MSLS)
<b>ECTS Credits</b>	5
<b>Workload</b>	150 h: Contact and field trips 20 h; Student seminars 15 h; Self-study 115 h
<b>Module Coordinator</b>	<p><b>Name</b> Prof. Dr. Peter Spring</p> <p><b>Phone</b> +41 79 467 78 23</p> <p><b>Email</b> <a href="mailto:peter.spring@bfh.ch">peter.spring@bfh.ch</a></p> <p><b>Address</b> Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences, Laenggasse 85, 3052 Zollikofen</p>
<b>Lecturers</b>	<ul style="list-style-type: none"> <li>• Dr. Peter Spring</li> <li>• Dr. Roland Stähli and team UB</li> <li>• Dr. Michael Studer</li> <li>• Principal advisors / scientific coaches</li> </ul>
<b>Entry Requirements</b>	<i>None</i>
<b>Learning Outcomes and Competences</b>	<p>After completing the module students will be able to:</p> <ul style="list-style-type: none"> <li>• understand basic scientific knowledge and recent developments in their field of specialization;</li> <li>• utilize the acquired scientific knowledge in their research and development work;</li> <li>• recognize current developments in a broader scientific context and consider them in their own work;</li> <li>• actively participate in scientific discussions with specialists of different subject matters.</li> </ul>
<b>Module Content</b>	<p>In this module students will first define – in discussion with their principal advisors / scientific coach - a specific topic. Students will then develop strategies to set personal learning targets and to acquire the related basic scientific knowledge. They will acquire and deepen their personal basic scientific knowledge based on individual targets in different areas, such as:</p> <ul style="list-style-type: none"> <li>• Production practices in agriculture;</li> <li>• Systems understanding: e.g. renewable natural resources, nutrient cycles, or carbon sequestration;</li> <li>• Anatomy, physiology, chemistry and physics in agriculture; or</li> <li>• Economics of production and resource management.</li> </ul> <p>Contact hours and field trips focus on new developments in science and state of the art scientific information in agriculture and related fields. During the student seminars participants present their findings and engage in discussions on the topics of their peers.</p>
<b>Teaching / Learning Methods</b>	Lectures to give basic scientific and methodological inputs; Guided self-study to set personal learning targets and to reach these targets; Seminar series.
<b>Assessment of Learning Outcome</b>	<ol style="list-style-type: none"> <li>1) Oral presentation and active participation in seminar series (50%)</li> <li>2) Oral exam on individual learning targets (50%)</li> </ol>
<b>Bibliography</b>	Individually defined by student and scientific coach
<b>Language</b>	English

<b>Comments</b>	<p>The acquired knowledge will depend on the individual backgrounds and objectives of the students.</p> <p>The following sequences are compulsory for students: Introduction, field trips, energy seminar and student seminars. For details on compulsory sequences, please refer to the detailed schedule of the module, which will be uploaded on Moodle four weeks before the start of the module.</p>
<b>Last Update</b>	21.03.2023 / Loredana Storno