



# Master in Life Sciences

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

<b>Module Title</b>	<b>Expansion of Personal Scientific Knowledge</b>
<b>Module Code</b>	MCLs045
<b>Code</b>	AF-21
<b>Degree Programme</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>• Prof. Dr. Peter Spring</li> <li>• Prof. Dr. Roland Stähli</li> <li>• Prof. Dr. Michael Studer</li> <li>• Principal advisors / scientific coaches</li> </ul>
<b>Entry Requirements</b>	None
<b>Learning Outcomes and Competencies</b>	<p>After completing the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• understand individual selected scientific knowledge and recent developments in their field of specialisation;</li> <li>• utilise the acquired scientific knowledge in their research and development work;</li> <li>• recognise 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 but rather broad topic (The module cannot be used to conduct a focused literature review for an upcoming Master thesis). Students will then develop strategies to set personal learning targets and to acquire the related scientific knowledge. They will acquire and deepen their personal 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, field trips and seminars 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 and Learning Methods</b>	Lectures to give select scientific and methodological input; guided self-study to set personal learning targets and to reach these targets; seminar series.
<b>Assessment of Learning Outcomes</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. The topic will be presented and discussed in student seminars combined with an oral exam, which are attended by all students:</p> <p><b><u>Mandatory requirements for admission to the final presentation and oral exam are as follows:</u></b></p> <p><b>Five out of the following 6 events must be attended:</b></p> <ul style="list-style-type: none"><li>Introduction day</li><li>Groupe seminar on targets setting</li><li>Field trip 1</li><li>Field trip 2</li><li>Energy seminar</li><li>Online seminar</li></ul> <p>If <b><u>4 or fewer of the events are attended</u></b>, the <b><u>presentation and oral exam cannot be held</u></b> and the module is assessed with a grade of 1.</p> <p>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>	January 2026