

# Master in Life Sciences

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

<b>Module title</b>	<b>Journal Club Environmental and Natural Resource Sciences</b>
<b>Code</b>	E1
<b>Degree Programme</b>	Master of Science in Life Sciences
<b>Group</b>	Environment
<b>Workload</b>	3 ECTS (90 student working hours: 42 lessons contact = 32 h; 58 h self-study)
<b>Module Coordinator</b>	<p><b>Name:</b> Dr. Lindsey Norgrove  <b>Phone:</b> +41 (0)31 910 21 94  <b>Email:</b> <a href="mailto:lindsey.norgrove@bfh.ch">lindsey.norgrove@bfh.ch</a>  <b>Address:</b> Berner Fachhochschule, HAFL, Länggasse 85, 3052 Zollikofen</p>
<b>Lecturers</b>	<ul style="list-style-type: none"> <li>• Dr. Lindsey Norgrove, BFH</li> <li>• Dr. Franck Cattaneo, HES-SO</li> <li>• Dr. Philippe Corvini, FHNW</li> <li>• Guest lecturers</li> </ul>
<b>Entry requirements</b>	<p>Students will be asked to select their paper and to read some of the selected articles before the start of the module.</p> <p>A self-test will be made available on Moodle similar to the morning tests, so that students can get used to the format.</p>
<b>Learning outcomes and competences</b>	<p>After completing the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Grasp main ideas of a scientific publication</li> <li>• Identify novelties in approach, methods and results</li> <li>• Describe to peers conclusions and their relevance to the scientific community</li> <li>• Critically reflect on the above</li> <li>• Understand meta-analyses</li> </ul>
<b>Module contents</b>	<p>Lecturers from the three schools identify recent peer-reviewed papers from their specialization that are meaningful to a wider public (e.g. from Nature, Science). They provide a general matrix for analysis and questions specific to each paper. Papers are grouped into several themes (one per day) and participating lecturers take responsibility for entire themes.</p> <p>Students choose in teams of 2 a paper of their interest for in-depth study and prepare a presentation to their classmates. Yet, all students read all the 15-25 papers as preparation for the scientific debate in class and 2 further students act as discussants, preparing critical questions.</p> <p>The module is structured as follows into the seven sessions:</p> <ol style="list-style-type: none"> <li>1. Introduction: The process of scientific publishing (incl. peer review); the idea of the journal club; tasks and responsibilities of students; allocation of papers; etiquette in scientific debates; team work contract; presentation skills</li> <li>2. Reading and local/distant coaching (students stay in their home school; the lecturers for each theme are available during 2 hours for questions; the module coordinator is available via Skype)</li> <li>3.-7. Journal club in the narrow sense with the following structure (moderation by the lecturer responsible for the theme of the day)             <ol style="list-style-type: none"> <li>a) Morning test (20', multiple choice, on Moodle) on the 4 papers of the day (those who fail have to leave the room and do the reading outside?)</li> </ol> </li> </ol>

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	<ul style="list-style-type: none"> <li>b) Introduction by the lecturer responsible for the theme</li> <li>c) 4-5 presentations and debate (15+25 minutes each) for each paper, 2 discussants give their individual arguments in the debate The lecturer responsible for the theme corrects for each paper any wrong concepts presented by students</li> <li>d) Wrap-up by the lecturer: What are the links and cross-cutting issues between the four or five papers, what can we learn from the debates?</li> <li>e) Systematic reviews and meta-analyses: Principles, techniques, example(s)</li> <li>f) Overall wrap-up and evaluation</li> </ul>
<b>Teaching / learning methods</b>	<p>Inputs on general principles illustrated by examples from NRM and followed by exercises</p> <p>Seminar style for sessions 3-7</p>
<b>Assessment of learning outcome</b>	<ul style="list-style-type: none"> <li>1. 5 morning tests (written, individual, open-book, the results of the 3 best tests count) (30%)</li> <li>2. Presentation (group mark, teams of 2) (50%)</li> </ul> <p>Performance as discussant (individual) (20%)</p>
<b>Format</b>	7-weeks
<b>Timing of the module</b>	Autumn semester, CW 38-44
<b>Venue</b>	Bern
<b>Bibliography</b>	<p><u>Pre-course material:</u></p> <p>The 16-20 publications that students will analyse will be uploaded on Moodle four weeks before the start of the module.</p> <p>Luederitz C, Meyer M, Abson DJ, Gralla F, Lang DJ, Rau AL, von Wehrden H, 2016. Systematic student-driven literature reviews in sustainability science—an effective way to merge research and teaching. <i>Journal of Cleaner Production</i>, 119, 229-235.</p>
<b>Language</b>	English
<b>Links to other modules</b>	The framework for analysis could be useful also in other modules where papers play an important role.
<b>Comments</b>	<p>The module will be given by lecturers from the three schools; the lecturers from HES-SO and FHNW contribute one theme each linked to their specialisations (including identifying suitable papers and guiding through the respective day).</p> <p>The present proposal includes systematic reviews / meta-analyses only as a topic, which will be illustrated by examples. Depending on experience in year one, the concept may be enhanced for further years so that students will DO a joint meta-analysis under the guidance of the module coordinator. This could yield a joint publication.</p>
<b>Last Update</b>	23.02.2018