

# Master in Life Sciences

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

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| <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<br/> <b>Phone:</b> +41 (0)31 910 21 94<br/> <b>Email:</b> <a href="mailto:lindsey.norgrove@bfh.ch">lindsey.norgrove@bfh.ch</a><br/> <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>• Dr Michaela Zeiter, BFH,</li> <li>• Possibly 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 a paper of their interest for in-depth study and prepare a presentation, either individually or in pairs, to their classmates. Yet, all students read all the 15-25 papers as preparation for the scientific debate in class and 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)</li> </ol> |

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|                                       | <ul 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> <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<br/>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 (50%) - form depends on the number of participants: <ul style="list-style-type: none"> <li>- teams of two or more (group mark)</li> <li>- individual presentation</li> </ul> </li> <li>3. Performance as discussant (individual) (20%)</li> </ul>  |
| <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.</p>   |
| <b>Last Update</b>                    | 14.03.2019  |