



Master in Life Sciences

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

Module title	Journal Club Environmental and Natural Resource Sciences
Code	E1
Degree Programme	Master of Science in Life Sciences
Group	Environment
Workload	3 ECTS (90 student working hours: 42 lessons contact = 32 h; 58 h self-study)
Module Coordinator	<p>Name: Dr. Lindsey Norgrove Phone: +41 (0)31 910 21 94 Email: lindsey.norgrove@bfh.ch Address: Berner Fachhochschule, HAFL, Länggasse 85, 3052 Zollikofen</p>
Lecturers	<ul style="list-style-type: none"> • Dr. Lindsey Norgrove, BFH • Dr. Franck Cattaneo, HES-SO • Dr. Philippe Corvini, FHNW • Dr Michaela Zeiter, BFH, • Dr Silvia Zingg, BFH • Possibly guest lecturers
Entry requirements	<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>
Learning outcomes and competences	<p>After completing the module, students will be able to:</p> <ul style="list-style-type: none"> • Grasp main ideas of a scientific publication • Identify novelties in approach, methods and results • Describe to peers conclusions and their relevance to the scientific community • Critically reflect on the above • Understand meta-analyses
Module contents	<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 15-30 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"> 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 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) 3.-7. Journal club in the narrow sense with the following structure (moderation by the lecturer responsible for the theme of the day)

	<p>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?)</p> <p>b) Introduction by the lecturer responsible for the theme</p> <p>c) 4-5 presentations and debate 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</p> <p>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?</p> <p>e) Systematic reviews and meta-analyses: Principles, techniques, example(s)</p> <p>f) Overall wrap-up and evaluation</p>
Teaching / learning methods	<p>Inputs on general principles illustrated by examples from NRM and followed by exercises</p> <p>Seminar style for sessions 3-7</p>
Assessment of learning outcome	<ol style="list-style-type: none"> 5 morning tests (written, individual, open-book, the results of the 3 best tests count) (30%) Presentation (50%) - form depends on the number of participants: <ul style="list-style-type: none"> teams of two or more (group mark) individual presentation Performance as discussant (individual) (20%)
Format	7-weeks
Timing of the module	Autumn semester, CW 38-44
Venue	Bern
Bibliography	<p><u>Pre-course material:</u></p> <p>The 15-30 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>
Language	English
Links to other modules	The framework for analysis could be useful also in other modules where papers play an important role.
Comments	<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>
Last Update	01.04.2020