

Module	Ecological assessment : from ecosystems to landscapes
Code	MLS_S17
Degree Program	Master of Science in Life Sciences (MSLS)
Cluster	Environment
Specialization	Natural Resource Management
ECTS Credits	4
Workload	120 h. Contact & Field work: 56 h; Self-study: 64 h
Module Coordinator	<p>Name Beat Oertli</p> <p>Phone +41 22 546 68 83</p> <p>Email beat.oertli@hesge.ch</p> <p>Address HEPIA-Lullier, 150 route de Presinge, 1254 Jussy</p>
Lecturers	Franck Cattaneo, Beat Oertli (HEPIA)
Entry Requirements	Bachelor in LS, Agronomy or Natural resource management, or equivalent
Learning Outcomes and Competences	<p>After completing the module students will be able to:</p> <p>Characterise ecosystems and their interactions from local (ecosystem) to regional scales (complex of naturals or agro-ecosystems, catchment, landscape).</p> <ul style="list-style-type: none"> • Assess the biodiversity. • Explain the connections of the ecosystems and their integration in the landscape or in the catchments. • Evaluate the impacts of the natural and manmade disturbances on the functioning of ecosystems, landscapes and catchments. • Identify and characterize the environmental factors influencing the biodiversity, in particular in relation with human development.
Module Content	<ul style="list-style-type: none"> • Natural- and agro- ecosystems, sampling strategy and analysis. • Landscape ecology; connectivity of ecosystems in catchments and landscapes integrating the various land & water-uses. • From local to global disturbances (pollutions, neophytes, climate changes ...).
Teaching / Learning Methods	<ul style="list-style-type: none"> • Lectures • Individual and group exercises • Case-studies / projects • Field trips (mandatory) • Active participation in the module is requested
Assessment of Learning Outcome	<p>Examination: Report(s) produced during the S-module, and oral exam</p> <p>Reassessment: oral/written exam within four weeks after the publication of the grades.</p>

Bibliography	<ul style="list-style-type: none">• The bibliographic framework is composed of several publications (not listed here). They are made available on the Moodle platform before the starting of the lectures.• The following web sites provide several important documents.<ul style="list-style-type: none">○ https://www.bafu.admin.ch/bafu/fr/home/themes/biodiversite.html○ https://www.ser.org/page/SERDocuments○ https://www.conservationevidence.com/ <p>Documentation: http://cyberlearn.hes-so.ch (requires a login)</p>
Language	English
Comments	
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