

## Syllabus

### Course description

<b>Course title</b>	<b>Landscape Ecology</b>
<b>Course code</b>	47000
<b>Scientific sector</b>	BIO/03
<b>Degree</b>	Environmental Management of Mountain Areas
<b>Semester</b>	1
<b>Year</b>	/
<b>Academic year</b>	2017-2018
<b>Credits</b>	6
<b>Modular</b>	no

<b>Total lecturing hours</b>	40 (20 + 20)
<b>Total lab hours</b>	-
<b>Total exercise hours</b>	20 (10 + 10)
<b>Attendance</b>	requested
<b>Prerequisites</b>	none
<b>Course page</b>	<a href="https://next.unibz.it/en/faculties/sciencetechnology/master-environmental-management-mountain-areas/course-offering/">https://next.unibz.it/en/faculties/sciencetechnology/master-environmental-management-mountain-areas/course-offering/</a>

<b>Specific educational objectives</b>	The course provides basic and applied aspects of Landscape Ecology with regard to vegetation ecology, biology, and geography. The course is obligatory within the master program EMMA. Additionally to the basic aspects of Landscape Ecology, the course provides professional skills for environmental management with examples from mountain areas all over the world.
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<b>Lecturer</b>	Dr. Uta Schirpke & Prof. Dr. Stefan Zerbe
<b>Scientific sector of the lecturer</b>	BIO/03
<b>Teaching language</b>	English
<b>Office hours</b>	18 (9 + 9)
<b>Teaching assistant (if any)</b>	-
<b>Office hours</b>	-
<b>List of topics covered</b>	<p>The course will cover the following topics:</p> <ol style="list-style-type: none"> <li>1. Introduction to Landscape Ecology</li> <li>2. Landscape History in Central Europe &amp; the Alps</li> <li>3. Patterns and processes in landscapes</li> <li>4. Methodologies in landscape ecological research</li> <li>5. Ecosystems and land-use types in mountain areas</li> <li>6. Vegetation in landscapes &amp; plant sociology</li> <li>7. Ecosystem services</li> <li>8. Urban landscapes</li> <li>9. Interdisciplinary aspects in Landscape Ecology</li> <li>10. Applied Landscape Ecology: Nature conservation,</li> </ol>

	biological invasions, ecosystem disservices, etc. 11. Landscape dynamics and climate change in the Alps
<b>Teaching format</b>	Within the lectures, the topics are presented by the professors, in close interaction with the students. Students' contributions to discussion are highly appreciated. Generally, Power Point presentations will be available in the course reserve collection database of the faculty after the thematic lectures. Additional material will eventually be provided by the professors.

<b>Learning outcomes</b>	<p><b>Knowledge and understanding</b> of basic and applied aspects and methodologies in Landscape Ecology; knowledge and understanding of landscape patterns and processes as well as human impact on mountain ecosystems and landscapes</p> <p><b>Applying knowledge and understanding</b> to landscape and ecosystem management, solving environmental problems, or within research projects</p> <p><b>Making judgements</b> on landscape changes, human impact, and management options</p> <p><b>Communication skills</b> to present basic and applied aspects of landscape ecology and management to stakeholders, scientists, and the public clearly and unambiguously</p> <p><b>Learning skills</b> allow the students to continue their studies in a manner that may be largely self-directed or autonomous within practical projects or a PhD program</p>
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<b>Assessment</b>	Final written exam (100 %)
<b>Assessment language</b>	English
<b>Evaluation criteria and criteria for awarding marks</b>	The assessment of the written exam focuses on clarity of answers, mastery of language (with respect to teaching language), ability to summarize, evaluate, and establish relationships between topics

<b>Required readings</b>	<ul style="list-style-type: none"> <li>Farina, A., 2007. Principles and Methods in Landscape Ecology: Towards a Science of the Landscape. 2. ed., Springer, Dordrecht, pp1-414.</li> <li>Fu, B., Jones K.B., 2013. Landscape Ecology for Sustainable Environment and Culture. Springer</li> <li>Hong, S.-K., Nakagoshi, N., FU B., Morimoto, Y. (eds), 2007. Landscape Ecological Applications in Man-Influenced Areas: Linking Man and Nature Systems. Springer, Dordrecht.</li> </ul>
<b>Supplementary readings</b>	Papers provided during the lecture and seminar



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