

<b>Module Name</b>	<b>Module Code</b>
Landscape Systems Analysis Northern Finland	AEF-EM026
<b>Module Coordinator</b>	
Dr. rer. nat. Benjamin Burkhard	
<b>Organizer</b>	
Institut für Natur- und Ressourcenschutz - Ökosystemmanagement	
<b>Faculty</b>	
Faculty of Agricultural and Nutritional Sciences	
<b>Examination Office</b>	
Prüfungsamt Agrar- und Ernährungswissenschaftliche Fakultät	

<b>ECTS Credits</b>	6
<b>Evaluation</b>	Graded
<b>Duration</b>	one semester
<b>Frequency</b>	Only takes place during summer semesters
<b>Workload per ECTS Credit</b>	30 hours
<b>Total Workload</b>	180 hours
<b>Contact Time</b>	60 hours
<b>Independent Study</b>	120 hours
<b>Teaching Language</b>	English

<b>Recommended Requirements</b>			
Landscape ecology, Systems analysis, physical or human Geography, Soil science, GIS			
<b>Module Courses</b>			
<b>Course Type</b>	<b>Course Name</b>	<b>Compulsory/Optional</b>	<b>SWS</b>
Exercise	Landscape Systems Analysis Northern Finland (Field Course)	Compulsory	4
<b>Prerequisites for Admission to the Examination(s)</b>			
Regular visits of practical course, seminar and exercises are necessary.			

<b>Examination(s)</b>				
<b>Examination Name</b>	<b>Type of Examination</b>	<b>Evaluation</b>	<b>Compulsory / Optional</b>	<b>Weighting</b>
Protocol: Landscape Systems Analysis Northern Finland	Protocol	Graded	Compulsory	100
<b>Further Information on the Examination(s)</b>				
<p><b><u>Last lecture: summer semester 2016</u></b>            1.+2. period in summersemester            1. period in wintersemester</p> <p>examiner: PD Dr. Burkhard            QIS: 74700 with number of Examination 74710</p>				

<b>Course Content</b>
<p>Integrative landscape and land use assessments (reindeer husbandry, forestry, tourism, gold mining, nature protection) in the field            landscape data collection: permafrost forms (palsas, polygon soils, solifluction), deflation areas, reindeer pastures, glaciers and periglacial forms, tree line using field methods and equipment            Sites: Joensuu, Rovaniemi, Kittilä, Pallas Ounas National Park, Kilpisjärvi, Steindalbreen glacier, Malla National Park, Lake Päijänne</p>
<b>Learning Outcome</b>
<p>Systems analytical assessments of different landscapes in Europe's subpolar zone. Methods: Human-environmental systems analysis (e.g. ecosystem service assessments, ecological and socio-economic indicators, GIS, remote sensing), geographical field methods (Differential GPS, ground penetrating radar, vegetation biomass survey, lichen dating, spectrometer measurements, soil survey) and their practical application</p>
<b>Reading List</b>
<p>Forbes B.C., M. Bölter, L. Müller-Wille, J. Hukkinen, F. Müller, N. Gunsley, Y. Konstantinov (eds.) (2006): Reindeer Management in northernmost Europe. Ecological Studies 184. Springer.            Huntington, H.P. (2000): Arctic Flora and Fauna: Status and Conservation. CAFF.            further sources depending on topic</p>
<b>Additional Information</b>
<p><b><u>Last lecture: summer semester 2016</u></b>            PD Dr. Benjamin Burkhard            Fon: +49 431 880-1230            E-Mail: bburkhard@ecology.uni-kiel.de  <a href="http://www.ecosystem-management.uni-kiel.de/staff/bburkhard">http://www.ecosystem-management.uni-kiel.de/staff/bburkhard</a></p>

<b>Use</b>	<b>Compulsory / Optional</b>	<b>Semester</b>
Master, 1-subject, Agricultural Sciences, Agricultural Economics, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Agricultural Economics and Agribusiness # specific field of study: Agricultural Economics, (Version 2008)	Optional	-
Master, 1-subject, Agricultural Sciences, Agricultural Economics and Agribusiness # specific field of study: Agribusiness, (Version 2008)	Optional	-
Master, 1-subject, Agricultural Sciences, Agribusiness, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Crop Sciences, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Crop Sciences, (Version 2008)	Optional	-
Master, 1-subject, Agricultural Sciences, Animal Sciences, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Animal Sciences, (Version 2008)	Optional	-
Master, 1-subject, Agricultural Sciences, Environmental Sciences, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Environmental Sciences, (Version 2008)	Optional	-
Master, 1-subject, Applied Ecology, (Version 2016)	Optional	-
Master, 1-subject, Applied Ecology, (Version 2015)	Optional	-
Master, 1-subject, Applied Ecology, (Version 2010)	Optional	-
Master, 1-subject, Environmental Management, (Version 2013)	Optional	-
Master, 1-subject, Environmental Management - Management of Natural Resources, (Version 2010)	Optional	-
Master, 1-subject, Nutritional and Food Science, (Version 2013)	Optional	-
Master, 1-subject, Nutritional and Consumer Economics, (Version 2013)	Optional	-
Master, 1-subject, Nutritional Sciences and Household Economics, Nutritional and Consumer Economics, (Version 2008)	Optional	-
Master, 1-subject, Nutritional Sciences and Household Economics, Nutritional Sciences, (Version 2008)	Optional	-
Master, 1-subject, Sustainability, Society and the Environment, (Version 2013)	Optional	-