

Module Name	2.1.8 Landscape Systems Analysis Northern Finland (Excursion)
Identification code	AEF414, EM2.1.8, AE-CAU319
Subtitle	
Courses embedded	
Term	Summer
Coordinator	Dr. B. Burkhard
Teachers	Dr. B. Burkhard Prof. Dr. M. Bölter
Tuition language	English
Programme involvement	Elective MSc Environmental Management Elective MSc European Master in Applied Ecology
Teaching form, contact time per week	Exercises Basics of Ecosystem Analysis, advanced Ecosystem Analysis (30h/90h) Excursion Ecology of soils (30h/90h)
class size	6
Workload overall	180h
Contact time	60h
ECTS credit points	6
Preconditions prescribed	
Prerequisites recommended	Landscape ecology, Systems analysis, physical or human Geography, Soil science, Microbiology
Learning outcomes	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)
Content	Integrative landscape and land use assessments (reindeer husbandry, forestry, tourism, gold mining, nature protection) landscape data collection: permafrost forms (palsas, polygon soils, solifluction), deflation areas, reindeer pastures, glaciers and periglacial forms, tree line Sites: Joensuu, Rovaniemi, Kittilä, Pallas Ounas National Park, Kilpisjärvi, Steindalbreen glacier, Malla National Park
Assessment	Project 100%
Teaching media	
References	Forbes B.C., M. Bölter, L. Müller-Wille, J. Hukkinen, F. Müller, N. Gunslay, 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.
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