

module code /
module title

SoilEco / Soil and Ecosystem Ecology

 date / version of the module
description 25.05.2022

1 INFORMATION ON THE MODULE	
1a	module code SoilEco
1b	module title (German title) Boden- und Ökosystemökologie
1c	module title (English title) Soil and Ecosystem Ecology
1d	credit points 6
1e	responsible for the module Prof. Dr. Juliane Filser
1f	type of module elective module
1g	programs using the module M.Sc. Ecology
1h	organizational unit offering the module Klicken Sie hier, um Text einzugeben.
1i	content-related prior knowledge or skills Fundamental knowledge on concepts of ecology and invertebrate identification is recommended
1j	learning contents <ul style="list-style-type: none"> • Basic soil properties and their variability • Fundamentals of soil formation • Soil as a habitat • Soil biomass and biodiversity • Characteristics and functions of soil microorganisms, micro-, meso- and macrofauna • Adaptations to life in soil • Field excursions and sampling • Methods in soil ecology

		<ul style="list-style-type: none"> • Morphotype identification of soil invertebrates 																																																								
1k	learning outcomes/competencies/targeted competencies	<p>The students</p> <ul style="list-style-type: none"> • have a basic understanding of the most important soil properties • are able to roughly describe the horizons of selected soil types in the field and to interpret their most conspicuous characteristics • understand the special characteristics of soil as a habitat and are aware of various adaptations of the organisms living there • have a good overview on the biomass and diversity of soil organisms and the functions performed by them • understand the interactions of the different compartments and organisms in the pedosphere, with special respect to carbon cycling • are able to apply a range of methods in the field (soil sampling and description, pitfall and emergence traps, earthworm extraction) and to analyse soils in the lab (pH, aggregate size, water holding capacity, rough identification of meso- and macrofauna) • can evaluate the potentials and limitations of these and various additional methods in soil ecology 																																																								
1l	calculation of student workload <i>(part a: calculation of presence time and working hours)</i>	<p>The total amount of the presence time and working hours of the module has to be calculated additionally in the detailed calculation a) to c).</p> <p>a) detailed calculation: SWS / presence time/working hours in each course of the module</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td>1</td> <td>lecture(s) with</td> <td>1</td> <td>SWS/ contact hours</td> <td>14</td> <td>hours of presence time</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>1</td> <td>seminar(s) with</td> <td>1</td> <td>SWS/ contact hours</td> <td>14</td> <td>hours of presence time</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>1</td> <td>exercise(s) with</td> <td>3</td> <td>SWS/ contact hours</td> <td>42</td> <td>hours of presence time</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>internship(s) with</td> <td></td> <td>sum of working hours</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>seminar(s) with</td> <td></td> <td>SWS/ contact hours</td> <td></td> <td>total hours of presence time</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>laboratory/laboratories with</td> <td></td> <td>SWS/ contact hours</td> <td></td> <td>total hours of presence time</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>tutorial(s) with</td> <td></td> <td>SWS/ contact hours</td> <td></td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td></td> <td>excursion(s) with</td> <td>0.5</td> <td>SWS contact hours in total</td> <td>7</td> <td>working hours</td> </tr> </table>	<input checked="" type="checkbox"/>	1	lecture(s) with	1	SWS/ contact hours	14	hours of presence time	<input checked="" type="checkbox"/>	1	seminar(s) with	1	SWS/ contact hours	14	hours of presence time	<input checked="" type="checkbox"/>	1	exercise(s) with	3	SWS/ contact hours	42	hours of presence time	<input type="checkbox"/>		internship(s) with		sum of working hours			<input type="checkbox"/>		seminar(s) with		SWS/ contact hours		total hours of presence time	<input type="checkbox"/>		laboratory/laboratories with		SWS/ contact hours		total hours of presence time	<input type="checkbox"/>		tutorial(s) with		SWS/ contact hours			<input checked="" type="checkbox"/>		excursion(s) with	0.5	SWS contact hours in total	7	working hours
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		<input type="checkbox"/> other form of course (e.g. block seminar), namely this: Klicken Sie hier, um Text einzugeben. with SWS / with total contact hours <input type="checkbox"/> presence time <input type="checkbox"/> working hours = sum of presence time and working hours: 77
	calculation of student workload <i>(part b: preparation time and follow-up work/self-study)</i>	b) working hours for preparation/follow-up work of the course(s) and/or self-study = sum of working hours: 78 hours
	calculation of student workload <i>(part c: exam preparation etc.)</i>	c) exam preparation (incl. examination) = sum of working hours: 25 hours
	calculation of student workload <i>(total amount of hours including a) - c))</i>	Total amount of the presence time and working hours a) to c): 180 hours
1m	description of possible optional courses in the module	<u>Can a student choose between different courses within the module?</u> NO <u>Short description of selection option</u> Klicken Sie hier, um Text einzugeben.
1n	language(s) of instruction	<input type="checkbox"/> German <input checked="" type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> French <input type="checkbox"/> Other, namely this: Klicken Sie hier, um Text einzugeben.
1o	frequency	<i>(regular cycle module is offered) e.g.: winter semester, yearly or summer semester, yearly or each semester</i> summer semester yearly Klicken Sie hier, um Text einzugeben.
1p	duration	choose an option three weeks (including the examination)

1q	Literature (<i>optional</i>)	Klicken Sie hier, um Text einzugeben.
1r	more information on the module (<i>optional</i>)	Instructors: Juliane Filser
2	INFORMATION ON THE MODULE EXAMINATION (see also AT Art. 5 section 8)	
2a	type of examination	<input type="checkbox"/> module exam; i.e. exam with only one component (MP) <input checked="" type="checkbox"/> combination exam, i.e. exam with several components (administered by instructors) (KP) <input type="checkbox"/> partial exam; i.e. exam with several components (administered by registrar) (TP)
2b	exam components or prerequisites (<i>type, number</i>)	<p><i>PL</i> = graded component of the examination <i>SL</i> = ungraded component of the examination, coursework <i>PVL</i> = prerequisite of the examination (see AT Art. 5 Section 10)</p> <input checked="" type="checkbox"/> PL 1 <input checked="" type="checkbox"/> SL 2 <input type="checkbox"/> PVL justification
		<p>If necessary, further explanations:</p> <p>PL: Presentation and written assignment (of project), SL 1 = oral presentation. SL 2 = Portfolio (consisting of short tests)</p> <p>The portfolio forms a unit and is graded as such.</p>
2c	Give this information for combination examinations only: Weights (in percentage) of component grades	<p>PL 1: Klicken Sie hier, um Text einzugeben.</p> <p>PL 2: Klicken Sie hier, um Text einzugeben.</p> <p>PL 3: Klicken Sie hier, um Text einzugeben.</p> <p>PL 4: Klicken Sie hier, um Text einzugeben.</p> <p>If necessary, further comments:</p> <p>Klicken Sie hier, um Text einzugeben.</p>
2d	form of examination (see AT BPO/AT MPO Art. 8, 9 and 10)	<input type="checkbox"/> Assignment <input type="checkbox"/> Oral examination (single) <input checked="" type="checkbox"/> Presentation, oral <input type="checkbox"/> Written examination <input type="checkbox"/> Group examination, oral <input checked="" type="checkbox"/> Presentation and written assignment <input checked="" type="checkbox"/> Portfolio <input type="checkbox"/> Project report <input type="checkbox"/> Bachelor Thesis <input type="checkbox"/> Internship report <input type="checkbox"/> Colloquium <input type="checkbox"/> Master Thesis <input type="checkbox"/> Other (concrete definition is given in the examination regulations):
2e	language(s) of instruction	<input type="checkbox"/> German <input checked="" type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> French <input type="checkbox"/> Other, namely this: Klicken Sie hier, um Text einzugeben.

