

module code /  
module title

## FunctEcol / Functional Ecology: From Biodiversity Patterns to Ecosystem Functioning

 date / version of the module description  
25.05.2022

1 INFORMATION ON THE MODULE		
1a	module code	FunctEcol
1b	module title (German title)	Funktionelle Ökologie: die Verknüpfung von Biodiversitätsmustern mit Funktionen von Ökosystemen
1c	module title (English title)	Functional Ecology: From Biodiversity Patterns to Ecosystem Functioning
1d	credit points	6
1e	responsible for the module	Dr. Marlis Reich
1f	type of module	elective module
1g	programs using the module	Ecology (M.Sc.)
1h	organizational unit offering the module	Klicken Sie hier, um Text einzugeben.
1i	content-related prior knowledge or skills	Prior completion of the module Molecular Techniques of Ecology is recommended.
1j	learning contents	<ul style="list-style-type: none"> <li>• Evolution and function of (marine) organisms</li> <li>• Ecological processes driving patterns of functional diversity</li> <li>• Genetics, variability and the relevance thereof to understand ecological processes</li> <li>• Principles of „omics“ approaches: genomics, transcriptomics, proteomics</li> <li>• Environmental genomics: taxa- and community-centered approaches</li> <li>• Computational biology: resources, pipelines, databases</li> </ul>

1k	learning outcomes/ competencies/ targeted competencies	<p>Students will be able to evaluate which computational sources need to be used to decipher the biogeography of species and their functional traits from different -omic datasets.</p> <p>Students will be able to critically evaluate publications based on omic datasets, present them in an understandable way, and use their knowledge to discuss their own opinions with others.</p>
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1l	calculation of student workload  <i>(part a: calculation of presence time and working hours)</i>	<p><b>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).</b></p> <p><b>a) detailed calculation:</b>  <b>SWS / presence time/working hours in each course of the module</b></p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td>1</td> <td>lecture(s) with</td> <td>2</td> <td>SWS/ contact hours</td> <td>28</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>2</td> <td>SWS/ contact hours</td> <td>28</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 type="checkbox"/></td> <td></td> <td>excursion(s) with</td> <td></td> <td>SWS contact hours in total</td> <td></td> <td>working hours</td> </tr> </table> <p><input type="checkbox"/> other form of course (e.g. block seminar), namely this:          Klicken Sie hier, um Text einzugeben.</p> <p>with                      SWS / with total                      contact hours    <input type="checkbox"/> presence time    <input type="checkbox"/> working hours</p> <p><b>= sum of presence time and working hours:</b>          70</p>	<input checked="" type="checkbox"/>	1	lecture(s) with	2	SWS/ contact hours	28	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	2	SWS/ contact hours	28	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 type="checkbox"/>		excursion(s) with		SWS contact hours in total		working hours
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	calculation of student workload  <i>(part b: preparation time and follow-up work/self-study)</i>	<p><b>b) working hours for preparation/follow-up work of the course(s) and/or self-study</b>  <b>= sum of working hours:</b>          30</p>
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	calculation of student workload <i>(part c: exam preparation etc.)</i>	<b>c) exam preparation (incl. examination)</b> = sum of working hours: 80
	calculation of student workload <i>(total amount of hours including a) - c))</i>	<b>Total amount of the presence time and working hours a) to c):</b> 180
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> winter semester yearly Klicken Sie hier, um Text einzugeben.
1p	duration	Other, namely this: 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: Dr. Marlis Reich, Dr. Rolf Nimzyk
<b>2</b>	<b>INFORMATION ON THE MODULE EXAMINATION</b> (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>	<i>PL = graded component of the examination</i> <i>SL = ungraded component of the examination, coursework</i> <i>PVL = prerequisite of the examination (see AT Art. 5 Section 10)</i> <input checked="" type="checkbox"/> PL   1 <input checked="" type="checkbox"/> SL   1 <input type="checkbox"/> PVL   justification  If necessary, further explanations:

		PL = Presentation, oral, SL = Assignment
2c	Give this information for combination examinations only: Weights (in percentage) of component grades	<p>PL 1:</p> <p>PL 2:</p> <p>PL 3: <a href="#">Klicken Sie hier, um Text einzugeben.</a></p> <p>PL 4: <a href="#">Klicken Sie hier, um Text einzugeben.</a></p> <p>If necessary, further comments:</p> <p><a href="#">Klicken Sie hier, um Text einzugeben.</a></p>
2d	form of examination (see AT BPO/AT MPO Art. 8, 9 and 10)	<p> <input checked="" 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 type="checkbox"/> Presentation and written assignment  <input 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): </p> <p><a href="#">Klicken Sie hier, um Text einzugeben.</a></p>
2e	language(s) of instruction	<p> <input type="checkbox"/> German      <input checked="" type="checkbox"/> English      <input type="checkbox"/> Spanish      <input type="checkbox"/> French  <input type="checkbox"/> Other, namely this: </p> <p><a href="#">Klicken Sie hier, um Text einzugeben.</a></p>