

module code /
module title

BMB-G / Module Master Thesis (incl. Colloquium) in Integrative BMB

 date / version of the module
description

17.02.2022

1 INFORMATION ON THE MODULE	
1a	module code BMB-G
1b	module title (German title) Modul Masterarbeit (inkl. Kolloquium) im Integrativen BMB
1c	module title (English title) Module Master Thesis (incl. Colloquium) in Integrative BMB
1d	credit points 30
1e	responsible for the module Prof. Dr. Barbara Reinhold-Hurek
1f	type of module compulsory module
1g	programs using the module M.Sc. Biochemistry and Molecular Biology (Students with MicroSys specialization choose module BMB-G-MicroSys instead)
1h	organizational unit offering the module
1i	content-related prior knowledge or skills Minimum of 66 CP acquired in BMB Master programme
1j	learning contents <p>Training on scientific objectives and work techniques of the different laboratories, methods relevant to the respective research questions, practical work, evaluation of data, error analysis, presentation of scientific data.</p> <p>The module Master Thesis aims at the training and individual independent performance of a research project under supervision of a senior scientist in the framework of inquiry-based learning. The master thesis project is supervised and conducted under the conditions of the respective department at the University of Bremen and the examination regulations of the respective study programme.</p> <p>The module includes compulsory elective choices (Wahlpflicht WP) of 24 weeks (or upon request 28 weeks):</p>

		<p>WP1: The practical work is conducted in a research group at the University of Bremen.</p> <p>WP2: The practical work is conducted as an internship student integrated in an external national or international research group.</p>																																																																														
1k	learning outcomes/ competencies/ targeted competencies	<p>Students have increased knowledge of relevant research background, can design and conduct a research project, can evaluate data critically and present their data professionally.</p> <p>The graduates have a proven level of knowledge and understanding of molecular biosciences and related disciplines, with particular expertise in their specific field of research. They are able to apply their academic knowledge and understanding in a broad and multidisciplinary context and acquire new knowledge. They know how to approach and to conduct a largely self-directed complex scientific project (including analytical applications), solve problems and present and defend their data and conclusions to a scientific auditorium.</p>																																																																														
1l	<p>calculation of student workload <i>(part a: calculation of presence time and working hours)</i></p>	<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 type="checkbox"/></td> <td>lecture(s) with</td> <td></td> <td>SWS/ contact hours</td> <td></td> <td>hours of presence time</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>1 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 type="checkbox"/></td> <td>exercise(s) with</td> <td></td> <td>SWS/ contact hours</td> <td></td> <td>hours of presence time</td> </tr> <tr> <td><input type="checkbox"/></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>seminar(s) with</td> <td></td> <td>SWS/ contact hours</td> <td></td> <td>total hours of presence time</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>laboratory/laboratories with</td> <td>51</td> <td>SWS/ contact hours</td> <td>714</td> <td>total hours of presence time</td> </tr> <tr> <td><input type="checkbox"/></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>excursion(s) with</td> <td></td> <td>SWS contact hours in total</td> <td></td> <td>working hours</td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="5">other form of course (e.g. block seminar), namely this:</td> </tr> <tr> <td></td> <td colspan="5">Klicken Sie hier, um Text einzugeben.</td> </tr> <tr> <td></td> <td>with</td> <td>SWS / with totaly</td> <td>contact hours</td> <td><input type="checkbox"/></td> <td>presence time <input type="checkbox"/> working hours</td> </tr> <tr> <td></td> <td colspan="5">= sum of presence time and working hours:</td> </tr> <tr> <td></td> <td colspan="5">728</td> </tr> </table>	<input type="checkbox"/>	lecture(s) with		SWS/ contact hours		hours of presence time	<input checked="" type="checkbox"/>	1 seminar(s) with	1	SWS/ contact hours	14	hours of presence time	<input type="checkbox"/>	exercise(s) with		SWS/ contact hours		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 checked="" type="checkbox"/>	laboratory/laboratories with	51	SWS/ contact hours	714	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	<input type="checkbox"/>	other form of course (e.g. block seminar), namely this:						Klicken Sie hier, um Text einzugeben.						with	SWS / with totaly	contact hours	<input type="checkbox"/>	presence time <input type="checkbox"/> working hours		= sum of presence time and working hours:						728				
<input type="checkbox"/>	lecture(s) with		SWS/ contact hours		hours of presence time																																																																											
<input checked="" type="checkbox"/>	1 seminar(s) with	1	SWS/ contact hours	14	hours of presence time																																																																											
<input type="checkbox"/>	exercise(s) with		SWS/ contact hours		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 checked="" type="checkbox"/>	laboratory/laboratories with	51	SWS/ contact hours	714	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																																																																											
<input type="checkbox"/>	other form of course (e.g. block seminar), namely this:																																																																															
	Klicken Sie hier, um Text einzugeben.																																																																															
	with	SWS / with totaly	contact hours	<input type="checkbox"/>	presence time <input type="checkbox"/> working hours																																																																											
	= sum of presence time and working hours:																																																																															
	728																																																																															

	<p>calculation of student workload</p> <p><i>(part b: preparation time and follow-up work/self-study)</i></p>	<p>b) working hours for preparation/follow-up work of the course(s) and/or self-study</p> <p>= sum of working hours:</p> <p>142</p>
	<p>calculation of student workload</p> <p><i>(part c: exam preparation etc.)</i></p>	<p>c) exam preparation (incl. examination)</p> <p>= sum of working hours:</p> <p>30</p>
	<p>calculation of student workload</p> <p><i>(total amount of hours including a) - c))</i></p>	<p>Total amount of the presence time and working hours a) to c):</p> <p>900</p>
1m	<p>description of possible optional courses in the module</p>	<p><u>Can a student choose between different courses within the module?</u></p> <p>YES</p> <p><u>Short description of selection option</u></p> <p>The module includes compulsory elective choices (Wahlpflicht WP) of 24 weeks (or upon request 28 weeks):</p> <p>WP1: The practical work is conducted in a research group at the University of Bremen.</p> <p>WP2: The practical work is conducted as an internship student integrated in an external national or international research group.</p>
1n	<p>language(s) of instruction</p>	<p><input type="checkbox"/> German <input checked="" type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> French</p> <p><input type="checkbox"/> Other, namely this:</p> <p>Klicken Sie hier, um Text einzugeben.</p>
1o	<p>frequency</p>	<p><i>(regular cycle module is offered) e.g.: winter semester, yearly or summer semester, yearly or each semester</i></p> <p>each semester</p> <p>Klicken Sie hier, um Text einzugeben.</p>
1p	<p>duration</p>	<p>one semester module</p>
1q	<p>Literature <i>(optional)</i></p>	<p>Klicken Sie hier, um Text einzugeben.</p>

1r	more information on the module (<i>optional</i>)	Klicken Sie hier, um Text einzugeben.												
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 type="checkbox"/> combination exam, i.e. exam with several components (administered by instructors) (KP) <input checked="" 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> <p><input checked="" type="checkbox"/> PL 2 x SL 1 <input type="checkbox"/> PVL justification</p> <p>If necessary, further explanations:</p> <p>SL: attendance of the accompanying seminar</p>												
2c	Give this information for combination examinations only: Weights (in percentage) of component grades	<p>PL 1: Master thesis, 75%</p> <p>PL 2: Colloquium, 25%</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)	<table border="0"> <tr> <td><input type="checkbox"/> Assignment</td> <td><input type="checkbox"/> Oral examination (single)</td> <td><input type="checkbox"/> Presentation, oral</td> </tr> <tr> <td><input type="checkbox"/> Written examination</td> <td><input type="checkbox"/> Group examination, oral</td> <td><input type="checkbox"/> Presentation and written assignment</td> </tr> <tr> <td><input type="checkbox"/> Portfolio</td> <td><input type="checkbox"/> Project report</td> <td><input type="checkbox"/> Bachelor Thesis</td> </tr> <tr> <td><input type="checkbox"/> Internship report</td> <td><input checked="" type="checkbox"/> Colloquium</td> <td><input checked="" type="checkbox"/> Master Thesis</td> </tr> </table> <p><input checked="" type="checkbox"/> Other (concrete definition is given in the examination regulations):</p> <p>attendance of the accompanying seminar (ungraded)</p>	<input type="checkbox"/> Assignment	<input type="checkbox"/> Oral examination (single)	<input 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 checked="" type="checkbox"/> Colloquium	<input checked="" type="checkbox"/> Master Thesis
<input type="checkbox"/> Assignment	<input type="checkbox"/> Oral examination (single)	<input 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 checked="" type="checkbox"/> Colloquium	<input checked="" type="checkbox"/> Master Thesis												
2e	language(s) of instruction	<p><input type="checkbox"/> German <input checked="" type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> French</p> <p><input type="checkbox"/> Other, namely this:</p> <p>Klicken Sie hier, um Text einzugeben.</p>												