

module code /
module title

Module E-LAB2-MicroSys / Lab Project 2 in Microbial Systems

 date / version of the module
description

06.01.2021

1 INFORMATION ON THE MODULE	
1a	module code Module E-LAB2-MicroSys
1b	module title (German title) Laborprojekt 2 in Mikrobiellen Systemen
1c	module title (English title) Lab Project 2 in Microbial Systems
1d	credit points 12
1e	responsible for the module Prof. Dr. Barbara Reinhold-Hurek
1f	type of module elective module
1g	programs using the module M.Sc. Biochemistry and Molecular Biology (Students need to complete one Lab Project 1 (incl. Poster presentation) and one Lab Project 2. Students in Integrative BMB can choose freely between the Integrative BMB and MicroSys alternatives, whereas students in MicroSys specialization need to complete at least one of the lab projects with a specialization in MicroSys).
1h	organizational unit offering the module Klicken Sie hier, um Text einzugeben.
1i	content-related prior knowledge or skills Knowledge of the contents of the modules A, basics in cell biology, chemistry and biochemistry and B (Models, Methods and Specialization) is recommended.
1j	learning contents Students will be trained on scientific objectives and work techniques in one of the different laboratories, with one of the lab rotations in the field of Microbial Systems. From a large spectrum of scientific projects students can select their preferred topic and working group. They will get involved in all phases of an experimental research project: Development of working hypotheses, experimental design, method selection, experimental work, analysis if the data and relevant statistics. They will write a research report, present and discuss the outcome of their project results in a seminar.
1k	learning outcomes/ competencies/ targeted competencies Students have an increased knowledge about relevant research questions. Students can apply general and specific experimental techniques, analyze and interpret the respective data depending on the research areas of their project. Students are able to independently plan, perform and analyze an experiment based on information from the literature. Students are able to assess the relevance of an experiment with respect to the objective of their

project in the current scientific context.

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).

a) detailed calculation:

SWS / presence time/working hours in each course of the module

<input type="checkbox"/>	lecture(s) with	SWS/ contact hours	hours of presence time
<input type="checkbox"/>	seminar(s) with	SWS/ contact hours	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"/>	1 laboratory/laboratories with	17 SWS/ contact hours	238 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

other form of course (e.g. block seminar), namely this:

Workshop (poster included)

with SWS / with totally contact hours presence time working hours

= sum of presence time and working hours:

238

11 calculation of student workload
(part a: calculation of presence time and working hours)

b) working hours for preparation/follow-up work of the course(s) and/or self-study

= sum of working hours:

94

calculation of student workload
(part b: preparation time and follow-up work/self-study)

	calculation of student workload <i>(part c: exam preparation etc.)</i>	c) exam preparation (incl. examination) = sum of working hours: 28
	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): 360
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>
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:
1o	frequency	<i>(regular cycle module is offered) e.g.: winter semester, yearly or summer semester, yearly or each semester</i> each semester
1p	duration	Other, namely this: 9 weeks
1q	Literature <i>(optional)</i>	
1r	more information on the module <i>(optional)</i>	The presence time in the laboratory given in 1l can vary. Usually, students spend 6 weeks full-time in the laboratory. Depending on the lab and topic, a varying part of this time can be conducted in self study.
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>	<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 2 SL <input type="checkbox"/> PVL justification If necessary, further explanations:

2c	<p>Give this information for combination examinations only: Weights (in percentage) of component grades</p>	<p>PL 1: project report (lab report), 70%</p> <p>PL 2: presentation, oral, 30%</p> <p>PL 3:</p> <p>PL 4:</p> <p>If necessary, further comments:</p>
2d	<p>form of examination (see AT BPO/AT MPO Art. 8, 9 and 10)</p>	<p> <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 type="checkbox"/> Presentation and written assignment <input type="checkbox"/> Portfolio <input checked="" 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>
2e	<p>language(s) of instruction</p>	<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>