



Annex SFB

Studienfachbeschreibung (subject description, SFB) for the subject Technology of Functional Materials as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

Responsible: Faculty of Chemistry and Pharmacy Examination regulations version: 2010 Abbreviations used: Course types: $\mathbf{E} = \text{field trip}$, $\mathbf{K} = \text{colloquium}$, $\mathbf{O} = \text{conversatorium}$, $\mathbf{P} = \text{placement/lab course}$, $\mathbf{R} = \text{project}$, $\mathbf{S} = \text{seminar}$, $\mathbf{T} = \text{tutorial}$, $\mathbf{\ddot{U}} = \text{exercise}$, \mathbf{V} = lecture Term: **SS** = summer semester, **WS** = winter semester Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, SFB = list of modules Other: A =thesis, LV =course(s), PL =assessment(s), TN =participants, VL =prerequisite(s) Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cre-Conventions for the modules in this SFB: ditable for bonus. Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the me-Information on thod of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the assessment procedures: customary manner. Should a module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below. Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with the general regulations governing the degree subject described in this module catalogue:

ASP02007

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

29-Apr-2010 (2010-23)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

Every module will be described using the following form:

Abbreviation	Module title											
	ECTS		Durati	on (in semesters)		Method of grading		Module level				
	Courses			To be spe	o be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y							
	Method of as	ssessn	nent									
	Only after su completion of	iccessf of	ūl	if applica	fapplicable							
	Other prerequisites			if applicable								
	Participants and allocati- on of places			if applicable								
	Additional information			if applicable								
	Referred to in LPO I			if applicable (examination regulations for teaching-degree programmes)								

Compulsory Courses (35 ECTS credits)												
11-E5T-092-m01	Mechani	cal and	l Therma	l Mate	rial Properties							
	ECTS 5	5	Duratio	n	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses			V + Ü	(no information on S	SWS (weekly contact	hours) and course lan	nguage ava	ailable)			
	Method o	ofasse	ssment	a) wri prox. minar	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (ap- orox. 30 minutes per candidate) or c) project report (approx. 10 pages, time to complete: 1 to 4 weeks) or d) presentation/se- minar presentation (approx. 30 minutes)							
	Onto electronic Materi			Admis to qua cours obtain for as quent ew.	o qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the ourse. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration or assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.							
11-MOE-092-m01	Opto-ele	ctronic	: Materia	l Prop	roperties							
	ECTS 5 Duratio			n	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses			V + Ü	(no information on S	SWS (weekly contact	hours) and course lan	nguage ava	ailable)			
	Method of assessment			a) wri prox. pages	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes)							
	other prerequisites			Admis to qua cours obtain for as quent ew.	ssion prerequisite to alify for admission to e. Registration for th ned the qualificatior sessment into effect semester. For asses	assessment: succes assessment. The le e course will be cons for admission to as t. Students who mee ssment at a later date	ssful completion of ap cturer will inform stud sidered a declaration of sessment over the cou t all prerequisites will e, students will have to	pprox. 50% lents abou of will to s urse of the be admitt to obtain th	o of exercises. (at the respectiv eek admission semester, the ed to assessme he qualification	Certain prerequisites must be met e details at the beginning of the to assessment. If students have lecturer will put their registration ent in the current or in the subse- n for admission to assessment an-		
08-PCM4-092-m01	Nanosca	le Mate	erials									
	ECTS 5	5	Duratio	n	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses			V + Ü	(no information on S	SWS (weekly contact	hours) and course lan	nguage ava	ailable)			
	Method o	of asse	ssment	a) wri	tten examination (ap	oprox. 90 minutes) o	r b) oral examination ((approx. 2	o minutes) or c) talk (approx. 40 minutes)		
08-SAM-092-m01	Technolo	ogy of S	Sensor a	nd Acto	or Materials includir	ng Smart Fluids						
	ECTS 5	5	Duratio	n	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses			V + P	(no information on S	SWS (weekly contact	hours) and course lan	iguage ava	ailable)			
	Method o	of asse	ssment	writte	n examination (90 n	ninutes)						

08-PR-092-m01	Resear	Research project										
	ECTS	10	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		R (no	t (no information on SWS (weekly contact hours) and course language available)							
	Metho	d of asse	essment	report	report (approx. 10 to 15 pages)							
				Langu	lage of assessment	German or English						
08-MKoll-TF-092-	Master	Thesis'	Colloqui	um								
moi	ECTS	5	Duratio	1	1 semester Method of grading numerical grade Modul level graduate							
	Course	S		K (no	< (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment final colloquium (approx. 90 minutes)											
Compulsory Electiv	ves (6o ECTS credits)											
General Compulsor	ulsory Electives (30 ECTS credits)											
11-A3-072-m01	Labora	tory and	l Measure	ement	Technology							
	ECTS	6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Courses			V + Ü	/ + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method	d of asse	essment	writte	n examination (app	rox. 120 minutes)						
	other p	rerequis	sites	Admis to qua cours obtain for as quent ew.	to qualify for admission to assessment: Successful completion of approx. 50% of exercises. Certain prerequisites must be may optimize the qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students hav obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registratic for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subs quent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment at a later date, students will have to obtain the qualification for admission to assessment at a later date.							
	Particip cation	oants an of place	id allo- s	Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.								
11-NM-WP-072-	Nanom	atrix ins	sulation s	system	s and photovoltaics	i						
m01	ECTS	6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	S		V + R	(no information on S	SWS (weekly contact hours) and course language av	vailable)					
	Methoo	d of asse	essment	a) wri oral e	tten examination (a xamination in group	pprox. 90 minutes) or b) talk (approx. 30 minutes) o os (approx. 30 minutes) or d) project report (approx.	or c) oral examin 10 pages)	ation of one candidate each or				
11-NM-HM-072-	Nanom	atrix se	micondu	ctor ma	aterials							
m01	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	S		V + R	(no information on S	SWS (weekly contact hours) and course language av	vailable)					
	Method of assessment		a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages)									

11-NM-HP-072-	Nanomatrix Semiconductor Processing										
m01	ECTS	6	Duratio	า	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	s		V + R	V + R (no information on SWS (weekly contact hours) and course language available)						
	Metho	d of ass	essment	a) wri	a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or						
				oral e	xamination in grou	ups (approx. 30 minutes) or d) project report (ap	prox. 10 pages)				
11-NM-BV-072-	Nanom	atrix Bi	ophysical	Analy	zing Systems and	Processes					
m01	ECTS 6 Duration			n 1 semester Method of grading numerical grade Modul leve				undergraduate			
	Course	S	_	V + R	(no information or	SWS (weekly contact hours) and course langua	age available)				
	Metho	d of ass	essment	a) wri oral e	a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages)						
10-M-ODE-082-	Ordinary Differential Equations										
m01	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	:S		V + Ü	+ Ü (no information on SWS (weekly contact hours) and course language available)						
	Metho	d of ass	essment	writte exam Langu	en examination (ap ination of one can lage of assessmen	prox. 90 minutes); if announced by the lecturer, didate each (approx. 20 minutes) or an oral exa it: German, English if agreed upon with the exan	, the written examina mination in groups (ຊ niner	tion can be replaced by an oral groups of 2, approx. 30 minutes)			
	other p	orerequi	sites	tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali fication for admission to assessment at a later date, students will have to obtain the quali fication for admission to assessment anew.							
08-PS3-092-m01	Applie	d Specti	oscopy 3								
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	s		V (no	information on SW	/S (weekly contact hours) and course language	available)				
	Metho	d of ass	essment	1 writ ons (a (grou	ten examination (a approx. 60 minute: ps of 2, approx. 30	pprox. 90 minutes) or 2 written examinations (a s each) or oral examination of one candidate ea o minutes)	approx. 60 or 90 mini ch (approx. 20 minut	utes each) or 3 written examinati- es) or oral examination in groups			
08-10C4-092-m01	Organi	c Chemi	istry for s	tudent	s of engineering						
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	es.		V + Ü (no information on SWS (weekly contact hours) and course language available)							
	Metho	d of ass	essment	writte	n examination (90	minutes)					
	other p	rerequi	sites	Registration for assessment: Yes, as specified.							

11-0HL-092-m01											
	ECTS 5	5	Duratior	า	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	ailable)			
	Method o	of asse	essment	a) wrii prox. pages) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (ap- prox. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes)						
	other pre	erequis	ites	Admis to qua course obtain for as quent ew.	to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment an-ew.						
08-PW1-092-m01	Polymeric Materials 1: Technology of Modifying Polymers										
	ECTS 5	5	Duratior	1	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V + P	(no information on S	WS (weekly contact l	nours) and course language av	ailable)			
	Method of assessment written examination (90 minutes)										
08-PW2-092-m01	Polymeric Materials 2: Technology of Modifying Fillers for Polymers										
	ECTS 5	5	Duration	<u>1</u>	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V + P	(no information on S	WS (weekly contact l	nours) and course language av	ailable)			
	Method o	of asse	ssment	writte	written examination (90 minutes)						
10-I-DB2-092-m01	Data bas	es 2									
	ECTS 5	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses			V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	ailable)			
	Method o	ofasse	essment	writte 25 mi	n examination (50 m nutes)	ninutes) or oral exam	nation (one candidate each: 19	; minutes, group	ps of 2: 20 minutes, groups of 3:		
10-I-EL-092-m01	E-Learnir	ıg									
	ECTS 5	5	Duratior	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses			V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	ailable)			
	Method o	ofasse	essment	writte 25 mi	n examination (50 m nutes)	ninutes) or oral exami	nation (one candidate each: 15	; minutes, group	ps of 2: 20 minutes, groups of 3:		
10-I-IR-092-m01	1 Information Retrieval										
	ECTS 5	5	Duration	ı	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses			V + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method o	of asse	essment	a) wri prox.	tten examination (ap 20 minutes, groups	oprox. 50 minutes) or of 3: approx. 25 minu	b) oral examination (one cand ites)	idate each: app	rox. 15 minutes, groups of 2: ap-		

99-HIS-092-m01	992-mo1 Materials for high voltage insulation and high voltage systems										
	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	unknown			
	Courses		V + Ü	V + Ü + P (no information on SWS (weekly contact hours) and course language available)							
	Method of asse	essment	written examination (approx. 90 minutes)								
99-MSTS-092-m01	Modelling and	simulatio	on for t	echnology syster	ns						
	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	unknown			
	Courses		V + Ü	/ + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method of asse	essment	writte assig	written examination (approx. 90 minutes) or modelling assignment in the form of a project (expenditure of time for modelling assignment to be specified at the beginning of the course)							
08-FS5-101-m01	Chemical Nano	otechnolo	gy: An	alytics and Applic	ations						
	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		This r •	 is module comprises 2 module components. Information on courses will be listed separately for each module component. o8-FS5-1-101: V (no information on SWS (weekly contact hours) and course language available) o8-FS5-2-101: V (no information on SWS (weekly contact hours) and course language available) 							
	Method of asse	essment	Asses stated Asses	 Assessment in module component o8-FS5-1-101: Sol-Gel Chemistry 2 2 ECTS, Method of grading: numerical grade a) oral examination (approx. 15 minutes) or b) written examination (approx. 45 minutes) Assessment in module component o8-FS5-2-101: Application oriented Characterization of colloidal and polymeric systems 3 ECTS, Method of grading: numerical grade a) oral examination (approx. 20 minutes) or b) written examination (approx. 45 minutes) 							
	Participants and allo- cation of places		Numb a star of pla numb respe (25% comp alloca	Number of places: 20. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. A waiting list will be maintained and places reallocated as they become available.							
	Additional Info	ormation	The c	ourse is offered as	a block course at the	end of the semester.					
08-FS6-101-m01	Coating Technology based on Vapour Deposition										
	ECTS 5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)								
	Method of asse	essment	a) wri	a) written examination (approx. 90 minutes) or b) oral examination (approx. 30 minutes)							

03-SP1A1-101-m01	Basic principles of cell biology and tissue regeneration										
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	5		V + Ü	+ P (no informatio	n on SWS (weekly con	tact hours) and course langua	ge available)			
	Method	l of ass	essment	place cal co	ment report / field ourse (approx. 10 p	work report / report o bages) and a) written e	n practical training / report on xamination (approx. 90 minut	practical course es) or b) presenta	/ project report / report on techni- ation (approx. 30 minutes)		
03-SP1A2-101-m01	Fundam	nentals	of Tissue	Engin	eering and Quality	/ Management					
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V + Ü	+ Ü + P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			place cal co	olacement report / fieldwork report / report on practical training / report on practical course / project report / report on techni- cal course (approx. 10 pages) and a) written examination (approx. 90 minutes) or b) presentation (approx. 30 minutes)						
03-SP2A1-101-m01	Materials used for surgical implants										
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	5		V + Ü	+ P (no informatio	n on SWS (weekly con	tact hours) and course langua	ge available)			
	Method of assessment			place cal co	acement report / fieldwork report / report on practical training / report on practical course / project report / report on techni- al course (approx. 10 pages) and a) written examination (approx. 90 minutes) or b) presentation (approx. 30 minutes)						
03-SP2A2-101-m01	Materia	ls for b	iosensor	s, tiss	ue engineering and	d tissue regeneration					
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V + Ü	+ P (no informatio	n on SWS (weekly con	tact hours) and course langua	ge available)			
	Method	l of ass	essment	place cal co	placement report / fieldwork report / report on practical training / report on practical course / project report / report on techni- cal course (approx. 10 pages) and a) written examination (approx. 90 minutes) or b) presentation (approx. 30 minutes)						
03-SP3A1-101-m01	Carrier	materia	als and de	evices	for therapeutic cor	mpounds					
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	5		V + Ü	+ P (no informatio	n on SWS (weekly con	tact hours) and course langua	ge available)			
	Method	l of asso	essment	place cal co	ment report / field ourse (approx. 10 p	work report / report o bages) and a) written e	n practical training / report on xamination (approx. 90 minute	practical course es) or b) presenta	/ project report / report on techni- ation (approx. 30 minutes)		
03-SP3A2-101-m01	Microsy	/stems	for biolog	gical a	nd medicinal Appli	ications					
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	5		V + Ü	+ P (no informatio	n on SWS (weekly con	tact hours) and course langua	ge available)			
	Method	l of asso	essment	place cal co	ment report / field ourse (approx. 10 p	work report / report o bages) and a) written e	n practical training / report on xamination (approx. 90 minute	practical course es) or b) present	/ project report / report on techni- ation (approx. 30 minutes)		
08-EEW-101-m01	Electro	chemica	al Energy	Storag	ge and Conversion						
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	5		V + P + E (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment written examination (90 minutes) and lab report (approx. 5 pages)										

08-MW-101-m01	Structure and Properties of Modern Materials: Experiments and Simulations										
	ECTS	5	Duratio	1	1 semester	Method of grading numerical grade	Modul level	graduate			
	Course	es		V + S	(no information on S	SWS (weekly contact hours) and course language av	ailable)				
	Metho	d of ass	essment	talk (approx. 45 minutes)							
08-0CM-FM-101-	Organ	ic Functi	onal Mat	erials							
m01	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate			
	Course	es		V (no	/ (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			a) 1 to exami	a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)						
10-M-FAN-072-m01	101 Introduction to Functional Analysis										
	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	es	_	V + Ü	(no information on S	SWS (weekly contact hours) and course language av	ailable)				
	Metho	d of ass	essment	writte exami Langu	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites			tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi- on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as- sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- fication for admission to assessment anew.							
	Referre	ed to in l	PO I	§ 73 (1) 1. Mathematik Analysis							
10-M-NM1-082-	Numer	rical Mat	hematics	1							
m01	ECTS	8	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	es		V + Ü	(no information on S	SWS (weekly contact hours) and course language av	ailable)				
	Metho	d of ass	essment	writte exami Langu	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites			Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respec- tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi- on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as- sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- fication for admission to assessment anew.							
	Referred to in LPO I			fications for the second secon	on for admission to a 1) 5. Mathematik An	assessment anew. gewandte Mathematik					

10-M-NM2-082-	Numerical Mathematics 2										
m01	ECTS	5	Duration	ı	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Courses	5		V + Ü	(no information on S	SWS (weekly contact hours) and course language av	ailable)				
	Method	of asse	essment	writte	n examination (app	rox. 90 minutes); if announced by the lecturer, the w	ritten examina	tion can be replaced by an oral			
				exami	ination of one candi	date each (approx. 20 minutes) or an oral examinati	ion in groups (g	roups of 2, approx. 30 minutes)			
	othorn	oroqui	itor	Cortai		t be met to qualify for admission to accossment. Th	o locturor will in	form students about the respec			
	other pi	erequis	siles	tive d	tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi-						
				on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester,							
				the le	le lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as-						
				sessn	sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali-						
	Referred	d to in L	.PO I	§ 73 (73 (1) 5. Mathematik Angewandte Mathematik						
10-M-PRG-082-	Program	nming	course for	stude	nts of Mathematics	and other subjects					
m01	ECTS	3	Duration	า	1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Courses	5	<u>, </u>	P (no	information on SWS	(weekly contact hours) and course language availa	ble)				
	Method	of asse	essment	projec	ct in the form of prog	gramming exercises (as specified at the beginning o	f the course)				
				Langu	age of assessment:	German, English if agreed upon with the examiner					
	other prerequisites			Admis abser	ssion prerequisite to ice).	assessment: regular attendance (attendance moni	tored, a maxim	um of one incident of unexcused			
	Referred to in LPO I			§ 73 (1) 5. Mathematik An	gewandte Mathematik					
10-M-COM-082-	Computeroriented Mathematics										
m01	ECTS	3	Duration	1	1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Courses	5		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method	of asse	essment	projec	t in the form of prog	gramming exercises (as specified at the beginning o	f the course)				
				Assessment offered: once a year, summer semester							
	other ni	rerequie	sites	Admie	sion prerequisite to	assessment. regular attendance of exercises (atter	idance monitor	ed a maximum of one incident of			
		erequi		unexc	used absence).						
	Referred	d to in L	.PO I	§73 (1) 5. Mathematik An	gewandte Mathematik					
08-PCM5-102-m01	Physica	l chem	istry of su	ipramo	olecular assemblies						
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate			
	Courses	5		S + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method	ofasse	essment	written examination (90 minutes) and/or oral examination of one candidate each (20 minutes) and/or talk (30 minutes) Language of assessment: German or English							

11-HNS-092-m01	Semiconductor Nanostructures										
	ECTS	6	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	es	_	R + V	(no information on S	SWS (weekly contact	hours) and course language av	ailable)			
	Metho	od of asse	essment	a) writ prox. to 10 Asses nounc 2009. Langu	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each of oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English						
	other	prerequis	sites	tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission for admission to assessment anew.							
11-QTH-102-m01	Quant	um Trans	sport in S	emico	nductor Nanostructu	ires	1		*		
	ECTS	6	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	es		V + R	(no information on S	SWS (weekly contact	hours) and course language av	ailable)	·		
	Metho	od of asse	essment	a) wrii prox. to 10 Asses nound 2009. Langu	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each of oral examination in groups (approx. 30 minutes) per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English						
	other prerequisites			Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respec- tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi- on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as- sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- fication for admission to assessment anew.							
03-PM2-122-m01	Polym	ers II									
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		S + Ü	S + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment		a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (20 minutes) or c) talk (30 minutes) Language of assessment: German or English								

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08-NT-122-m01	Chemically and bio-inspired Nanotechnology for Material Synthesis										
	ECTS 5	Duration	ו	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses		This n	 his module comprises 2 module components. Information on courses will be listed separately for each module component. o8-NT-1-122: V (no information on SWS (weekly contact hours) and course language available) o8-NT-2-122: V (no information on SWS (weekly contact hours) and course language available) 							
	Method of ass	essment	Asses stated	Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.							
			 Assessment in module component 08-NI-1-122: Sol-Gel Chemistry 1: Fundamentals 2 ECTS, Method of grading: numerical grade a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Assessment in module component 08-NT-2-122: From Biomineralisation to biologically inspired Materials Synthesis 3 ECTS, Method of grading: numerical grade a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) 								
Focus (30 ECTS created All modules that ar	lits) e taken must come from the same focus subject (either A or B).										
Focus Subject A: Bi	ocompatible ma	aterials (3	o ECTS	s credits)							
03-SP1A1-101-m01	Basic principles of cell biology and tissue regeneration										
	ECTS 5	Duration	I	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses		V + Ü	+ P (no information	on SWS (weekly conta	act hours) and cours	se language	available)			
	Method of ass	essment	place cal co	ment report / fieldw urse (approx. 10 pag	ork report / report on ges) and a) written ex	practical training / i amination (approx.	report on pr 90 minutes)	actical course ,) or b) presenta	/ project report / report on techni- tion (approx. 30 minutes)		
03-SP1A2-101-m01	Fundamentals	of Tissue	Engine	eering and Quality N	Management						
	ECTS 5	Duration	۱ 	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses		V + Ű	+ P (no information	on SWS (weekly conta	act hours) and cours	se language	available)			
	Method of ass	essment	place cal co	ment report / fieldw urse (approx. 10 pa	ork report / report on ges) and a) written ex	practical training / I amination (approx.	report on pr 90 minutes)	actical course ,) or b) presenta	/ project report / report on techni- ation (approx. 30 minutes)		
03-SP2A1-101-m01	Materials used	d for surgi	cal imp	plants	· · · ·						
	ECTS 5	Duration	۱ 	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses		V + Ü	+ P (no information	on SWS (weekly conta	act hours) and cours	se language	available)			
	Method of assessment placement report / fieldwork report / report on practical training / report on practical course / project report / report on teo cal course (approx. 10 pages) and a) written examination (approx. 90 minutes) or b) presentation (approx. 30 minutes)										
03-SP2A2-101-m01	Materials for biosensors, tissue engineering and tissue regeneration										
	ECTS 5	Duration	ו	1 semester	Method of grading	numerical grade		Modul level	graduate		
	Courses		V + Ü	+ P (no information	on SWS (weekly conta	act hours) and cours	se language	available)			
	Method of ass	essment	place cal co	ment report / fieldw urse (approx. 10 pag	ork report / report on ges) and a) written ex	practical training / amination (approx.	report on pr 90 minutes)	actical course ,) or b) presenta	/ project report / report on techni- ation (approx. 30 minutes)		

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03-SP3A1-101-m01	Carrier materials and devices for therapeutic compounds									
	ECTS 5 Duration		n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	S		V + Ü	V + Ü + P (no information on SWS (weekly contact hours) and course language available)					
	Method	Method of assessment			placement report / fieldwork report / report on practical training / report on practical course / project report / report on techni-					
				cal co	cal course (approx. 10 pages) and a) written examination (approx. 90 minutes) or b) presentation (approx. 30 minutes)					
03-SP3A2-101-m01	Microsystems for biological and medicinal Applications									
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Course	S	-	V + Ü	+ P (no information	on SWS (weekly cont	tact hours) and course language	e available)		
	Method of assessment			placement report / fieldwork report / report on practical training / report on practical course / project report / report on techni- cal course (approx, 10 pages) and a) written examination (approx, 90 minutes) or b) presentation (approx, 30 minutes)						
Focus Subject B: Te	echnical	functio	nal mater	ials (3	o ECTS credits)	- · ·		· · · ·		
11-NM-WP-072-	Nanom	atrix ins	ulation s	system	s and photovoltaics					
m01	ECTS 6 Duration			n	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Courses			V + R (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages)						
11-NM-HM-072-	Nanomatrix semiconductor materials									
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Courses		V + R (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment			a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages)						
08-IOC4-092-m01 Organic Chemistry for students of engineering										
	ECTS 5 Duration			n	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Courses Method of assessment other prerequisites				(no information on S	SWS (weekly contact	hours) and course language ava	ailable)		
					written examination (90 minutes)					
					Registration for assessment: Yes, as specified.					

11-0HL-092-m01	Organic Semiconductor									
	ECTS 5 Duration		1	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	S		V + Ü	(no information on S	WS (weekly contact	hours) and course language av	ailable)		
	Metho	d of asse	essment	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes)						
	other prerequisites			Admission prerequisite to assessment: successful completion of approx. 50% of exercises. Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.						
08-PW1-092-m01	Polym	eric Mat	erials 1: T	echno	logy of Modifying Po	olymers				
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses			V + P	V + P (no information on SWS (weekly contact hours) and course language available)					
	Metho	d of asse	essment	writte	n examination (90 m	ninutes)				
08-PW2-092-m01	Polym	eric Mat	erials 2: 1	Techno	logy of Modifying Fi	llers for Polymers				
	ECTS 5 Duratio		Duration	<u>1</u>	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses			V + P	V + P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment			written examination (90 minutes)						
08-EEW-101-m01	Electro	chemica	al Energy	Storag	e and Conversion					
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses		V + P + E (no information on SWS (weekly contact hours) and course language available)							
	Metho	d of asse	essment	written examination (90 minutes) and lab report (approx. 5 pages)						
08-MW-101-m01	Struct	ire and l	Propertie	s of Mo	odern Materials: Exp	eriments and Simula	ations			
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses		_	V + S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			talk (approx. 45 minutes)						
08-0CM-FM-101-	Organi	c Functi	onal Mate	erials						
m01	ECTS 5 Duratio		Duration	ı	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Course	S		V (no	V (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment			a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)						

Thesis (25 ECTS credits)									
08-MT-TF-092-m01	101 Master-Thesis								
	ECTS 25 Duratio				1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses no courses assigned								
	Method of assessment written thesis							_	
	other prerequisites Registration for assessment on a continuous basis as agreed upon with supervisor.								

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