

Annex SFB

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

Responsible: Faculty of Medicine

Responsible: Faculty of Chemistry and Pharmacy

Responsible:

Responsible: Faculty of Physics and Astronomy

Responsible: University of Applied Sciences Würzburg- Schweinfurt (FHWS)

Examination regulations version: 2016

Abbreviations used: Course types: $\mathbf{E} = \text{field trip}$, $\mathbf{K} = \text{colloquium}$, $\mathbf{O} = \text{conversatorium}$, $\mathbf{P} = \text{placement/lab course}$, $\mathbf{R} = \text{project}$, $\mathbf{S} = \text{seminar}$, $\mathbf{T} = \text{tutorial}$, $\ddot{\mathbf{U}} = \text{exercise}$, $\mathbf{V} = \mathbf{V} = \mathbf{V}$

= 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)

Conventions for the

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cre-

modules in this SFB: ditable for bonus.

Information on Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the meassessment procedures: 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

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:

ASP02015

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

04-Apr-2016 (2016-51)

05-Jul-2017 (2017-44)

26-Jul-2018 (2018-52)

30-Jul-2020 (2020-60)

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		Duration	(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	ssessme	ent							
	Only after su completion of		l if applica	fapplicable						
	Other prereq	uisites	if applica	if applicable						
	Participants and allocation of places		ocati- if applica	if applicable						
	Additional information		on if applica	if applicable						
	Referred to in LPO I		if applica	ble (examination re	gulations for teachin	g-degree programmes)				

Compulsory Cours	es (40 ECTS	credits)								
11-FU-MTE-161-	Mechanic	al and Therma	l Material Properties	5						
mo1	ECTS 5	Duration	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	•	V (3) + Ü (1)							
			Module taught in: Ü: German or English							
	Method o	f assessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or							
				prox. 8 to 10 pages) or	candidate) of					
			e) presentation/talk	(approx. 30 minutes)						
			If a written examinat	tion was chosen as method of assessment, this	s may be changed and as	sessment may instead take the				
				nination of one candidate each or an oral exam						
				form students about this by four weeks prior to ment: German and/or English	the original examination	date at the latest.				
11-FU-MOE-161-	Onto-Elec	tronic Materia		ment. German and/or English						
mo1	ECTS 5	Duration		Method of grading numerical grade	Modul level	graduate				
	Courses	,	V (3) + Ü (1)	(3) + Ü (1)						
			Module taught in: Ü	: German or English						
	Method o	fassessment	a) written examinati	ion (approx. 90 to 120 minutes) or						
			b) oral examination of one candidate each (approx. 30 minutes) or							
			c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the							
			form of an oral exam	form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest.						
			Language of assessi	ment: German and/or English	1					
08-0C4-152-m01		hemistry 4								
	ECTS 5	Duration		Method of grading numerical grade	Modul level	undergraduate				
	Courses		V (2) + Ü (2)							
	Method of	t assessment	a) written examination	ion (approx. 90 to 180 minutes) or of one candidate each (20 to 30 minutes) or						
			c) oral examination	in groups of up to 3 candidates (approx. 15 min	nutes per candidate) or					
			d) log (approx. 20 pa	ages) or	iaces per carrarace, er					
			e) presentation (approx. 30 minutes)							
				ment: German and/or English						
	Referred t	o in LPO I	§ 22 Nr. 1 h)							
			§ 22 Nr. 2 f) § 62 Nr. 2							
			2 02 1 181. 2							

08-OCM-FM-161-	Organi	Organic Functional Materials										
mo1	ECTS	5	Duration	n .	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		S (3)	•	·	•					
	Method of assessment			b) ora c) ora d) log e) pre	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
08-FU-PR1-161-	Resear	ch Proje	ect 1				,					
mo1	ECTS	10	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		R (10)	*	·	•					
	Method of assessment					es) nt: German and/or English						
08-FU-PR2-161-	Resear	ch Proje	ect 2				-					
mo1	ECTS	10	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			R (10)								
	Method	d of ass	essment		t (approx. 25 pago lage of assessme	es) nt: German and/or English						
Compulsory Elective	/es (50 E	CTS cre	dits)									
Subfield Focus Top A focus topic (A or	ic (30 E(B) is to b	TS crec	lits) ted, from	which	modules totaling	30 ECTS points are to be included.						
Focus Topic A: Bio	material	s (30 E0	CTS credit	s)								
03-BIO-	Biofabi	rication										
FAB-152-m01	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2) · Modu	+ Ü (1) le taught in: V, Ü	: English						
	Method	d of ass	essment	b) ora c) tall	tten examination l examination of x (30 minutes) lage of assessme	(approx. 90 minutes) or one candidate each (20 minutes) or nt: English						
03-FU-TE-AT-161-		Engine	ering - Alt	ernativ	es to Animal Tes	ting						
mo1	ECTS	5	Duration		1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course			V (2) ·								
	Method	d of ass	essment	minut	es)	ourse (approx. 10 pages) and b) presentation nt: German and/or English	(approx. 30 minutes) or	written examination (approx. 60				

03-FU-IMP-161-	Fundar	nentals	of Physic	logy a	nd Application of	Surgical Implants by Loss of Function	,					
mo1	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	:S		V (3) -	V(3) + P(1)							
	Method of assessment		essment	minut	es); weighted 1:1	urse (approx. 10 pages) and b) presentation (a t: German and/or English	approx. 30 minutes) or	written examination (approx. 90				
03-TE-REG-161-	Tissue	Tissue Engineering - Basics for Tissue Regeneration										
mo1	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	:S		V (2) -	+ Ü (2)							
	Method of assessment			minut) report on practical course (approx. 10 pages) and b) presentation (approx. 30 minutes) or written examination (approx. 60 ninutes) anguage of assessment: German and/or English							
03-FU-TMW-161-	Carrier	Materi	als and D	evices	for Therapeutic Co	mpounds						
mo1	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2) -	+ P (1)	·	•					
	Method of assessment			minut	a) report on practical course (approx. 10 pages) and b) written examination (approx. 90 minutes) or presentation (approx. 30 minutes) Language of assessment: German and/or English							
03-FU-TRM-161-	Techno	logies	to Suppoi	t Rege	nerative Medicine							
mo1	ECTS	5	Duratio		1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	·S		V (2) -	+ Ü (2)							
	Method of assessment			minut	a) report on practical course (approx. 10 pages) and b) presentation (approx. 30 minutes) or written examination (approx. 60 minutes)							
						t: German and/or English						
Focus Field B: Tec	hnical Ma	aterials	(30 ECTS	credits	s)							
o8-FU-MW-161-	Structu	ıre and	Propertie	s of Mo	odern Materials: E	xperiments vs. Simulations						
mo1	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	!S		V (2) -	+ S (1)							
	Method	d of ass	essment	b) ora c) ora Langu	l examination in g lage of assessmer	tes) or ne candidate each (approx. 20 minutes) or roups (groups of 2, approx. 30 minutes total) t: German and/or English ce a year, winter semester						

08-FU-SAM-161-	Sensor	and Ac	tor Mater	ials - F	unctional Ceramic	s and Magnetic Part	cles				
mo1	ECTS	5	Duration	ı	1 semester	Method of gradin	g numerical grade	Modul level	graduate		
	Course	S		V (2) +	- P (2)						
	Method	d of ass	essment		a) written examination (approx. 90 minutes) or						
					o) oral examination of one candidate each (approx. 20 minutes) or						
				C) ora	oral examination in groups (groups of 2, approx. 30 minutes per candidate) anguage of assessment: German and/or English						
					ssessment offered: Once a year, summer semester						
					creditable for bonus						
03-FU-PM2-161-	Polyme	ers II						,			
mo1	ECTS	5	Duration	1	1 semester	Method of gradin	g numerical grade	Modul level	graduate		
	Course	S		S (2) +	+ Ü (1)						
	Method	d of ass	essment			(approx. 90 minutes)					
							approx. 20 minutes) or				
				Langu	(approx. 30 minu	ites) nt: German and/or En	glish				
o8-PCM3-161-mo1	Nanoso	ale Ma	terials	Langa		The German and or En	5				
	ECTS	5	Duration		1 semester	Method of gradin	g numerical grade	Modul level	graduate		
	Course		1	S (2) +	(2) + Ü (1)						
	Courses				le taught in: Germ	ıan or English					
	Method of assessment										
					b) oral examination of one candidate each (approx. 20 minutes) or c) talk (approx. 30 minutes)						
					anguage of assessment: German and/or English						
					able for bonus	it. Cerman ana, or En	5				
08-SCM1-161-m01	Supran	nolecul	ar Chemis	try (Ba	sics)						
	ECTS	5	Duration	1	1 semester	Method of gradin	g numerical grade	Modul level	graduate		
	Course	S		S (3)				-			
					le taught in: Germ			,			
	Method	d of ass	essment			(approx. 90 minutes)					
						one candidate each (a nt: German and/or En					
o8-PCM5-161-mo1	Physica	al Chem	nistry of S		olecular Assembli	<u> </u>	5	(
001 0111101	ECTS	5	Duration		1 semester		g numerical grade	Modul level	graduate		
	Course		Daration	S (2) +		memod or gradin	5 namenear grade	modulitevel			
	554.50	_			le taught in: Germ	an or English					
	Method	d of ass	essment		a) written examination (approx. 90 minutes) or						
				b) oral examination of one candidate each (approx. 20 minutes) or							
					c) talk (approx. 30 minutes) Language of assessment: German and/or English						
				Langu	age of assessmer	it: German and/or En	รูแรแ				

08-FU-PW1-161-	Polyme	r Mate	rials 1: Te	chnolo	ogy of Polymer Mo	dification				
mo1	ECTS	5	Duration	n	1 semester	Method of grading numerical grade	·	Modul level	graduate	
	Course	S		V (2)	+ P (2)					
	Method	l of ass	essment	b) ora c) ora Langu Asses	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) Language of assessment: German and/or English Assessment offered: Once a year, winter semester P: creditable for bonus					
08-FU-PW2-161-	Polyme	r Mate	rials 2: Te	chnol	ogy of Filler Modifi	cation for Polymer Materials	'			
mo1	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	·	Modul level	graduate	
	Course	S		V (2)	+ P (2)	·				
	Method of assessment			a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) Language of assessment: German and/or English Assessment offered: Once a year, summer semester P: creditable for bonus						
11-NAN-152-m01	Nanoanalytics									
	ECTS	6	Duration	1	1 semester	Method of grading numerical grade	·	Modul level	graduate	
	Course	S		V (3) + R (1) Module taught in: German or English						
	Method of assessment			b) ora c) ora d) pro e) pro If a w form the le Lange	al examination of on al examination in go oject report (appro- esentation/talk (ap ritten examination of an oral examina ecturer must informuage of assessmer	approx. 90 to 120 minutes) or ne candidate each (approx. 30 minutes) roups (groups of 2, approx. 30 minutes) x. 8 to 10 pages) or prox. 30 minutes). was chosen as method of assessment, tion of one candidate each or an oral ex a students about this by four weeks priout: German and/or English approx 120 minutes).	per candidate) o this may be char camination in gro	nged and ass	ethod of assessment is changed,	

11-OHL-161-m01	Organic	Semiconducto	rs			,				
	ECTS	6 Duration	on	1 semester	Method of grading numerical grade	Modul level	graduate			
	Courses	5		V (3) + R (1) Module taught in: German or English						
	Method	of assessment	a) wri b) ora c) ora d) pro e) pro If a w form the le	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English						
					he semester in which the course is offered and in the	e subsequent se	emester			
11-HNS-161-m01	Optical Properties of Semiconductor Nanostructures									
	ECTS	6 Duration	on	1 semester	Method of grading numerical grade	Modul level	graduate			
	Courses			+ R (1) lle taught in: Germa	n or English					
	Method	of assessment	b) ora c) ora d) pro e) pro If a w form the le	al examination of on I examination in gro oject report (approx esentation/talk (app ritten examination v of an oral examinati cturer must inform uage of assessment		hanged and ass groups. If the m al examination (ethod of assessment is changed, date at the latest.			

11-ENT-152-m01	Princip	les of	Energy Tec	hnolog	gies						
	ECTS	6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate			
	Course	!S			V (3) + R (1) Module taught in: German or English						
	Method	d of ass	sessment	b) ora c) ora d) pro e) pre If a wi form of the le Langu	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: Once a year, winter semester						
				§ 22 l	Nr. 1 h) Nr. 2 f) Nr. 3 f)						
11-BVG-152-m01	Coating Technologies based on Vapour Deposition										
	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate			
	Courses			V (3) + R (1) Module taught in: German or English							
	Method of assessment			b) ora c) ora d) pro e) pre If a w form of the le Langu	al examination of a l examination in a pject report (appro- esentation/talk (a) ritten examination of an oral examina- ecturer must inforrage of assessme	(approx. 90 to 120 minutes) or one candidate each (approx. 30 minutes) or groups (groups of 2, approx. 30 minutes per capx. 8 to 10 pages) or pprox. 30 minutes). In was chosen as method of assessment, this mation of one candidate each or an oral examination of the caption of	nay be changed and ass ation in groups. If the m	ethod of assessment is changed,			

Subfield General Compulsory Electives (20 ECTS credits)
The 20 ECTS points can only be taken from the following modules.

Alternatively, within these 20 ECTS credits, modules from the "Subfield Focus Topic A and/or B" can also be included, whereby the modules already taken in the selected "Subfield Focus Topic" and brought in there cannot be used again in the "Subfield General Compulsory Electives".

If none of the following modules are taken, the 20 ECTS credits are to be selected from modules in the subfield of one and/or both focus topics that have not yet been used within the 30 credits of the "Subfield Focus Topic". **Module Group Engineering Sciences** 99-HIS-161-mo1 Materials for High Voltage insulation and High Voltage Systems **ECTS** Duration 1 semester Method of grading | numerical grade Modul level graduate $V(2) + \ddot{U}(1) + P(1)$ Courses Method of assessment | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes total) Language of assessment: German and/or English P: creditable for bonus 99-MST-161-mo1 Modeling and Simulation for Technological Systems **ECTS** Method of grading | numerical grade 5 Duration 1 semester Modul level graduate V (2) + Ü (2) Courses Method of assessment written examination (approx. 90 minutes) and practical examination (modelling assignment, approx. 40 hours) Language of assessment: German and/or English Assessment offered: Once a year, winter semester Ü: creditable for bonus **Module Group Material Sciences** 08-FU-NT-AA-152-Chemical Nanotechnology: Analytics and Applications mo1 Method of grading | numerical grade ECTS Duration 1 semester Modul level graduate V (4) Courses Method of assessment a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English **Electrochemical Energy Storage and Conversion** 08-FU-EEW-152mo1 ECTS Method of grading | numerical grade Duration Modul level undergraduate 15 1 semester V(2) + P(1) + E(1)Courses Method of assessment | a) assessment and b) Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical assignments (2 to 4 random examinations), weighted 7:3 Language of assessment: German and/or English Assessment offered: Once a year, summer semester

Analytical Methods - Examples from Practical Failure Analysis											
ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
Courses		V (2)	+ P (2)								
Method o	f assessment	a) wr	itten examination (a	approx. 90 to 180 min	utes) or						
			presentation (approx. 30 minutes)								
Chemical	Technology o	of Inorg	anic Nano and Micr								
ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
Courses		V (2)	+ P (2)								
Method o	of assessment										
			e) presentation (approx. 30 minutes)								
			Language of assessment: German and/or English								
		P: cre	P: creditable for bonus								
/sics	cs										
Coating T	echnologies	based o	on Vapour Depositio	on							
ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
Courses			V (3) + R (1) Module taught in: German or English								
Method o	of assessment				utes) or		_				
Method	n assessment										
		c) ora	al examination in gro	oups (groups of 2, app		ndidate) or					
		d) pro	oject report (approx	. 8 to 10 pages) or							
			e) presentation/talk (approx. 30 minutes).								
			If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest								
	Chemical ECTS 5 Courses Method co Method co Chemical ECTS 5 Courses Method co Method co Courses Method co Courses Method co Courses	Chemical Technology of ECTS 5 Duration Courses Method of assessment Courses Method of assessment Courses Method of assessment Courses Method of assessment Courses Coating Technologies of ECTS 5 Duration Courses	ECTS 5 Duration Courses V (2) Method of assessment a) wr b) ora c) ora d) log e) pre Lang Asses P: cre Chemical Technology of Inorg ECTS 5 Duration Courses V (2) Method of assessment a) wr b) ora c) ora d) log e) pre Lang Asses P: cre Courses V (2) Method of assessment a) wr b) ora c) ora d) log e) pre Lang Asses P: cre Courses V (3) Method of assessment a) wr b) ora c) ora d) pre e) pre lif a w form the legal angular angula	Courses V (2) + P (2)	Courses	ECTS 5	Courses				

11-SPD-152-m01	Physics of Semiconductor Devices											
	ECTS 6	Duration	1 semester	Method of grading numerical grade	Modul level	undergraduate						
	Courses	·	V (3) + R (1)		•							
			Module taught in: German or English									
	Method of as	sessment	a) written examination b) oral examination of	n (approx. 90 to 120 minutes) or f one candidate each (approx. 30 minutes) or								
			c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or									
			lf a written examination	e) presentation/talk (approx. 30 minutes). f a written examination was chosen as method of assessment, this may be changed and assessment may instead take the								
			form of an oral examir	form of an oral examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English								
				Once a year, summer semester								
11-HLF-152-m01	Semiconduct	or Lasers a	nd Photonics									
	ECTS 6	Duration	1 semester	Method of grading numerical grade	Modul level	graduate						
	Courses	·	V (3) + R (1) Module taught in: Ger	man or English								
	Method of as	sessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). f a written examination was chosen as method of assessment, this may be changed and assessment may instead take the									
			form of an oral examir the lecturer must infor Language of assessme Assessment offered: O	nethod of assessment is changed, date at the latest.								
11-QTH-161-m01	Quantum Tra											
	ECTS 6	Duration		Method of grading numerical grade	Modul level	graduate						
	Courses		V (3) + R (1) Module taught in: German or English									
	Method of as	sessment	b) oral examination of c) oral examination in d) project report (appr e) presentation/talk (a If a written examination form of an oral examination the lecturer must infor Language of assessment		y be changed and as on in groups. If the m original examination	nethod of assessment is changed, date at the latest.						

11-ZMB-152-m01	Methods of Non-Destructive Material Testing												
	ECTS	4	Duration	1 semester	Method of grading numerical grade	Modul level	undergraduate						
	Course	S		V (2) + R (1)		,							
				Module taught in: German or English									
	Method	d of ass	essment	a) written examination of	n (approx. 90 to 120 minutes) or f one candidate each (approx. 30 minutes) or								
					c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or								
				d) project report (approx. 8 to 10 pages) or									
				e) presentation/talk (a	e) presentation/talk (approx. 30 minutes). f a written examination was chosen as method of assessment, this may be changed and assessment may instead take the								
					nation of one candidate each or an oral examination								
				the lecturer must info	he lecturer must inform students about this by four weeks prior to the original examination date at the latest.								
					ent: German and/or English								
11-LMT-152-m01	Labora	Assessment offered: Once a year, winter semester Laboratory and Measurement Technology											
11-1/11-152-11101	ECTS	6	Duration		Method of grading numerical grade	Modul level	undergraduate						
	Course			V (3) + R (1)	Method of grading humerical grade	Modulitevel	undergraduate						
	Course	3			V (3) + R (1) Module taught in: German or English								
	Method	of ass		a) written examination (approx. 90 to 120 minutes) or									
				b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or									
				d) project report (approx. 8 to 10 pages) or									
				e) presentation/talk (approx. 30 minutes).									
				If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the									
				form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest.									
				Language of assessment: German and/or English									
				Assessment offered: Once a year, winter semester									
11-BMT-161-m01				nt Technology in Medi									
	ECTS	6	Duration		Method of grading numerical grade	Modul level	graduate						
	Course	S		V (3) + R (1)	was a su Faciliale								
	Matha	J - £		Module taught in: German or English a) written examination (approx. 90 to 120 minutes) or									
	Method	ı or ass			n (approx. 90 to 120 minutes) or fone candidate each (approx. 30 minutes) or								
				c) oral examination in	groups (groups of 2, approx. 30 minutes per cand	didate) or							
				d) project report (appr									
				e) presentation/talk (y ha changed and ac	sassment may instead take the						
				If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed,									
				the lecturer must info	he lecturer must inform students about this by four weeks prior to the original examination date at the latest.								
					ent: German and/or English	: the a subsequent a							
				ASSESSIFIERT OFFERED: I	n the semester in which the course is offered and	in the subsequent s	emester						

11-HLPH-161-m01	Semiconductor Physics											
	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate					
	Courses	<u> </u>	V (3) +			•						
				Module taught in: German or English								
	Method of	assessment	a) wri	tten examination	(approx. 90 to 120 minutes) or							
				o) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or								
			d) pro									
			e) pre	sentation/talk (ap	pprox. 30 minutes).							
					was chosen as method of assessment, this may ation of one candidate each or an oral examination							
					n students about this by four weeks prior to the o							
			Langu	lage of assessmer	nt: German and/or English							
					the semester in which the course is offered and in	n the subsequent se	emester					
11-ZDR-152-m01				imensional Röntg								
	ECTS 6	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate					
	Courses			((3) + R (1) Module taught in: German or English								
	Method of	assessment	a) wri	y) written examination (approx. 90 to 120 minutes) or y) oral examination of one candidate each (approx. 30 minutes) or								
			c) ora	c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or								
				d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes).								
				If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed,								
			form o									
				the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: Once a year, summer semester								
11-PMM-161-mo1		Advanced Ma	aterials									
	ECTS 6	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate					
	Courses		V (3) +	+R(1)	an au Euglish							
	Martha al a C			Module taught in: German or English								
	Method of	assessment			(approx. 90 to 120 minutes) or one candidate each (approx. 30 minutes) or							
					roups (groups of 2, approx. 30 minutes) of	date) or						
			d) pro	ject report (appro	x. 8 to 10 pages) or	•						
				e) presentation/talk (approx. 30 minutes).								
			If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed,									
				he lecturer must inform students about this by four weeks prior to the original examination date at the latest.								
					nt: German and/or English							
			Asses	sment offered: In	the semester in which the course is offered and in	n the subsequent se	emester					

11-LMB-152-m01	Labora	Laboratory and Measurement Technology in Biophysics												
	ECTS	6	Duration	1 S 6	emester	Method of grading numerical grade	Modul level	graduate						
	Course	S		V (3) + R (1)										
			-	Module taught in: German or English										
	Method	d of asso	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or										
				e) present	e) presentation/talk (approx. 30 minutes).									
					f a written examination was chosen as method of assessment, this may be changed and assessment may instead take the orm of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed,									
						students about this by four weeks prior to the origin								
						t: German and/or English								
CHC (ce a year, summer semester								
11-CMS-161-m01				s Science (<u> </u>									
		8	Duration		emester	Method of grading numerical grade	Modul level	graduate						
	Course	S 			4) + R (2) dule taught in: German or English									
	Method	d of asso	essment	a) written examination (approx. 90 to 120 minutes) or										
				b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or										
				d) project report (approx. 8 to 10 pages) or										
				e) presentation/talk (approx. 30 minutes).										
				If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English										
				Assessment offered: In the semester in which the course is offered and in the subsequent semester										
11-FK2-161-m01	Solid S		ysics 2											
	ECTS	8	Duration		emester	Method of grading numerical grade	Modul level	graduate						
	Course	S		V(4) + R(2)		an an English								
	Mathaa	l - £		Module taught in: German or English a) written examination (approx. 90 to 120 minutes) or										
	Method	or asso				approx. 90 to 120 minutes) or ne candidate each (approx. 30 minutes) or								
				c) oral exa	ımination in gr	oups (groups of 2, approx. 30 minutes per candidat	e) or							
						k. 8 to 10 pages) or								
						prox. 30 minutes). was chosen as method of assessment, this may be	changed and ac	sossment may instead take the						
						tion of one candidate each or an oral examination ir								
				the lecture	er must inform	students about this by four weeks prior to the origin								
						t: German and/or English								
				Assessme	nt offerea: In t	the semester in which the course is offered and in th	<u>subsequent so</u>	emester						

11-BMS-152-m01	Imagin	g Meth	ods at the	Synch	nroton			"				
	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S			V (3) + R (1)							
				Module taught in: German or English								
	Method	d of ass	essment	b) ora c) ora d) pro e) pre If a wi form of the le Langu	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: Once a year, summer semester							
11-BSV-161-m01	Image	and Sig	nal Proce		in Physics			,	-			
	ECTS	6	Duration		1 semester	graduate						
	Course	S			/ (2) + Ü (2) Nodule taught in: German or English							
	Method	1 of ass	essment	b) ora c) ora d) pro e) pre If a wi form of the le Langu	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead t form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
Module Group Che	mistry											
08-SCM3-152-m01	Bioorg	anic Ch	emistry									
	ECTS	5	Duration	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	:S		S (3)								
	Method	d of ass	essment	b) ora c) ora	al examination of or al examination in gr	approx. 45 to 90 minut ne candidate each (20 roups of up to 3 candic it: German and/or Engl	o to 30 minutes) or dates (15 to 30 minutes per car	ndidate)				

o8-BC-	Molecu	ılar Biol	logy for A	dvance	ed Students							
MOLMC-161-mo1	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2) ·	$V(2) + \ddot{U}(1)$							
	Method	d of ass	essment	b) ora c) ora d) log e) pre	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
08-OCM-SYNT-161-	Moderi	n Synth	etic Meth	ods			,					
mo1	ECTS	5	Duratio	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			+ Ü (1) Ile taught in: Germ	an or English						
	Method of assessment			a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English								
o8-PCM1a-161-	Laser S	pectros	scopy									
mo1	ECTS	5	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			S (2) + Ü (1) Module taught in: German or English							
	Method	d of ass	essment	b) ora	al examination of o	approx. 90 minutes) or ne candidate each (approx. 20 minutes) t: German and/or English						
08-PCM2-161-m01	Statist	ical Me	chanics a	nd Rea	ction Dynamics							
	ECTS	5	Duration		1 semester	graduate						
	Course	S			+ Ü (1) lle taught in: Germ							
	Method of assessment			a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) talk (approx. 30 minutes) Language of assessment: German and/or English								

08-PS3-152-m01	Applied	Spectro	oscopy 3	-		,					
	ECTS	5	Duration	1	1 semester	Method of grad	ing numerical grade	Modul level	undergraduate		
	Courses	5		V (3)							
	Method	of asse	essment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or							
					(approx. 20 page		iluluates (appiox. 15 ili	inutes per candidate) of			
				e) pres	sentation (approx						
						nt: German and/or	English				
Module Group Theo	ory of Cho	emistry	/ Numeri	ics (Mat	thematics / Com	puter Science)					
08-TCM2-161-m01		and App			ntum Chemistry						
	ECTS	5	Duration		1 semester	Method of grad	ing numerical grade	Modul level	graduate		
	Courses			S (2) +							
	Method	of asse	essment	a) writt	ten examination	(approx. 90 to 180	minutes) or				
							(20 to 30 minutes) or	inutes per candidate) or			
				d) log (
				e) presentation (approx. 30 minutes)							
0.7014		1 22 41	Language of assessment: German and/or English al Methods and Programming								
08-TCM3-161-m01											
		5	Duration		1 semester	Method of grad	ing numerical grade	Modul level	graduate		
	Courses			S (2) +	• •	(
	Method	or asse	essment			(approx. 90 to 180	minutes) or (20 to 30 minutes) or				
				c) oral	examination in §	groups of up to 3 ca		inutes per candidate) or			
				d) log ((approx. 20 page	es) or					
					sentation (approx	nt: German and/or	Fnølish				
08-TCM4-161-m01	Quantu	m Dvna	mics	Langue	250 01 4330331110	The German ana / Gr		1			
		5	Duration	n l	1 semester	Method of grad	ing numerical grade	Modul level	graduate		
	Courses			S (2) +	Ü (2)	10					
	Method	of asse	essment		ten examination						
			b) oral examination of one candidate each (20 to 30 minutes) or								
			c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or								
		e) presentation (approx. 30 minutes)									
				Language of assessment: German and/or English							

08-TCM1-161-m01	Selecte	d Topic	s in Theo	retical	Chemistry							
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			S (2) -	S (2) + Ü (2)							
	Method	of ass	essment	a) written examination (approx. 90 to 180 minutes) or								
				b) oral examination of one candidate each (20 to 30 minutes) or								
					c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or							
					sentation (approx.							
						: German and/or Eng	lish					
10-I-PP-152-m01	Practica	al Cours	se in Prog	rammi	ng							
	ECTS	10	Duration	1		Method of grading	(not) successfully completed	Modul level	undergraduate			
	Course	S		P (6)				-				
	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).								
	Referred to in LPO I			§ 49 Nr. 1 c) § 69 Nr. 1 d)								
10-M-MWR-152-	Modeli	ng and	Computat	tional S	Science							
mo1	ECTS	8	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			V (4) - Modu	+ Ü (2) le taught in: Germa	n and/or English						
	Method	d of asso	essment	a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus								

Module Group Biol	ogy											
07-4S1MOLB-152-	Aspect	s of Mo	ecular Bi	otechn	otechnology							
mo1	ECTS	5	Duratio	on 1 semester Method of grading numerical grade Modul level undergraduate								
	Courses			V (2) + S (2)								
	Method	d of ass	essment	writte credit	n examination (appr able for bonus	rox. 30 to 60 minutes)					
		oants ar of place		Stude Shoul chelo located degree cation availa quota form reconce least. A wait Select ments rage geludir lows: dits (dapplied ding the sasters lot. Question of the sasters lot.	Id the number of appents of the Bachelor' Id the module be user's degree subject Bed to students of the esubjects Computant-oriented subject Bed to none quota execution for the coerned will be allocated one other module coerned will be maintion process group a series for this purpose, a grade of all assessming Chemie (Chemistriest, applicants will qualitative ranking) accepted this third ranking. First, applicants will qualitate to the respective appends of ECTS credits all ame number of ECTS of the respective appunts 3 (25 % of placed the module be used to the module to the mo	s degree subject Bioled in other subjects, iologie (Biology) with a Bachelor's degree setional Mathematics a iology (as well as pot ceed the number of a vithin one module courses of one module ed in the same proceed and places realined and places realined and places realined and places realined secondly, according to the ranked, firstly, acand, secondly, according ranking will be cand, and applicants were applicants were (5%): Places will be ready achieved in module credits achieved, plaplicant; among applicant; among applices): lottery.	and 5% of play ubject Biologie (Biology) with 6 and Mathematik (Mathematics) entially to students of other 'implications, the remaining place mponent, several courses with component. In this case, place dure. In this procedure, applica ective module will be given presallocated as they become avairimarily be allocated according ked according to the number of eir studies or of all module com Mathematik (Mathematics)) at according to their average gradeding to their total number of EC alculated as the sum of these to ith the same ranking, places with the same ranking to the followed according to the followed with the same number of acces will be allocated by lot. Que cants with the same number of or's degree subject Biologie (Biologie)	edits will be give of places will be aces (a minimum or ECTS credits as porting' subjectes will be allocated number of ECTS credits the applicant of ECTS credits the time of application of ECTS credits the time of application of ECTS credits achies we rankings, and the Faculty of Boota 2 (25 % of possible ct semestes the subject semestes and th	ren preferential consideration. E allocated to students of the Bam of one place in total) will be almost of the Bachelor's ECTS credits, as part of the applits). Should the number of places ated to applicants from the other of places, there will be a unit of a module component that are y have successfully completed at deration. Its' previous academic achievency have achieved and their avesubject of Biologie (Biology) (explication. This will be done as folding to the number of ECTS creaved (quantitative ranking). The and places will be allocated accordance to the qualitative ranking to the qualitative rankin			

Module Group Foo	us Topic A										
03-BIO- FAB-152-m01	Biofabrication										
FAB-152-m01	ECTS 5 Durati	on 1 semester	Method of grading	numerical grade	Modul level	graduate					
	Courses	V (2) + Ü (1)			·						
		Module taught in: V, Ü: English									
	Method of assessmen		a) written examination (approx. 90 minutes) or								
			oral examination of one candidate each (20 minutes) or talk (30 minutes)								
			c) talk (30 minutes) Language of assessment: English								
03-FU-TE-AT-161-	Tissue Engineering - A	lternatives to Animal Test				-					
mo1	ECTS 5 Durati		Method of grading	numerical grade	Modul level	undergraduate					
	Courses	V (2) + Ü (2)	, 5 5			, ,					
	Method of assessmen	t a) report on practical co	ourse (approx. 10 pages)	and b) presentation (appro	x. 30 minutes) or	written examination (approx. 60					
		minutes)									
			nt: German and/or Engli								
03-FU-IMP-161- m01		iology and Application of				1					
11101	ECTS 5 Durati		Method of grading	numerical grade	Modul level	graduate					
	Courses	V (3) + P (1)									
	Method of assessmen	t a) report on practical comminutes); weighted 1:1	ourse (approx. 10 pages	and b) presentation (appro	x. 30 minutes) or	written examination (approx. 90					
		Language of assessmen	nt: German and/or Engli	sh							
03-TE-REG-161-	Tissue Engineering - Basics for Tissue Regeneration										
mo1	ECTS 5 Durati		Method of grading	numerical grade	Modul level	undergraduate					
	Courses	V (2) + Ü (2)				-					
	Method of assessmen	t a) report on practical co	ourse (approx. 10 pages)	and b) presentation (appro	x. 30 minutes) or	written examination (approx. 60					
		minutes)									
		Language of assessmen		sh							
03-FU-TMW-161- m01		Devices for Therapeutic Co									
11101	ECTS 5 Durati		Method of grading	numerical grade	Modul level	graduate					
	Courses	V (2) + P (1)	,		,						
	Method of assessmen	t a) report on practical co	ourse (approx. 10 pages	and b) written examination	(approx. 90 minu	utes) or presentation (approx. 30					
			nt: German and/or Engli	sh							
03-FU-TRM-161-	Technologies to Supp	ort Regenerative Medicine									
mo1	ECTS 5 Durati		Method of grading	numerical grade	Modul level	undergraduate					
	Courses	V (2) + Ü (2)	, 5 7 0			. · ·					
	Method of assessmen		ourse (approx. 10 pages	and b) presentation (appro	x. 30 minutes) or	written examination (approx. 60					
		minutes)	minutes)								
		Language of assessme	nt: German and/or Engli	sh							
Master's with 1 major F	unctional Materials (2016)			JMU Würzburg • generated 19-Apr	-2025 • exam. reg. data r	record 88 g81 - - H 2016 page 21 / 25					

Module Group Focu	ıs Topic B										
08-FU-MW-161-	Structure and	Propertie	s of Modern Mate	ials: Exp	eriments vs. Simulations						
mo1	ECTS 5	Duratio	1 semeste		Method of grading numerical grade	Modul level	graduate				
	Courses		V (2) + S (1)	(2) + S (1)							
	Method of ass	sessment	a) talk (approx. 30 minutes) or								
					e candidate each (approx. 20 minutes) or						
				oral examination in groups (groups of 2, approx. 30 minutes total) anguage of assessment: German and/or English							
					e a year, winter semester						
08-FU-SAM-161-	Sensor and Ad	tor Mater			and Magnetic Particles	,					
mo1	ECTS 5	Duratio	1 semeste		Method of grading numerical grade	Modul level	graduate				
	Courses		V (2) + P (2)		·	*					
	Method of ass	sessment			pprox. 90 minutes) or						
					e candidate each (approx. 20 minutes) or						
					ups (groups of 2, approx. 30 minutes per German and/or English	candidate)					
					e a year, summer semester						
			P: creditable for l	creditable for bonus							
03-FU-PM2-161-	Polymers II										
mo1	ECTS 5	Duratio			Method of grading numerical grade	Modul level	graduate				
	Courses		S (2) + Ü (1)								
	Method of ass	sessment			prox. 90 minutes) or						
			b) oral examinati c) talk (approx. 3		e candidate each (approx. 20 minutes) or	•					
					German and/or English						
o8-PCM3-161-mo1	Nanoscale Ma	terials			3.7.	,					
	ECTS 5	Duratio	1 semeste		Method of grading numerical grade	Modul level	graduate				
	Courses	,	S (2) + Ü (1)				•				
			Module taught in: German or English								
	Method of ass	sessment									
		b) oral examination of one candidate each (approx. 20 minutes) or c) talk (approx. 30 minutes)									
			Language of assessment: German and/or English								
			creditable for bo		2						

08-SCM1-161-m01	Supran	nolecul	ar Chemis	try (Ba	asics)							
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	s S		S (3)		·	-					
				Module taught in: German or English								
	Method	d of ass	essment			approx. 90 minutes) or						
					oral examination of one candidate each (approx. 20 minutes)							
				Language of assessment: German and/or English								
o8-PCM5-161-mo1					olecular Assembli							
	ECTS	5	Duration		1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			+ Ü (1) ıle taught in: Germ	an or English						
	Method	d of acc	essment			approx. 90 minutes) or						
	Mictrio	J 01 433	CSSIIICIII			ne candidate each (approx. 20 minutes) or						
			c) talk (approx. 30 minutes)									
						t: German and/or English						
08-FU-PW1-161-	Polyme	ymer Materials 1: Technology of Polymer Modification										
mo1	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2)	+ P (2)							
	Method	d of ass	essment	a) written examination (approx. 90 minutes) or								
					o) oral examination of one candidate each (approx. 20 minutes) or							
						oups (groups of 2, approx. 30 minutes per candidat t: German and/or English	(e)					
						ce a year, winter semester						
					ditable for bonus	, ,						
08-FU-PW2-161-	Polyme	er Mate	rials 2: Te	chnolo	ogy of Filler Modifi	cation for Polymer Materials						
mo1	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S	'	V (2)	+ P (2)		•					
	Method	d of ass	essment	a) wri	tten examination (approx. 90 minutes) or		·				
		b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate)										
				Language of assessment: German and/or English Assessment offered: Once a year, summer semester								
					editable for bonus	55 a y 5a., 5a						
L					-							

- I	Nanoanalytics ECTS (Duration I corrector Method of grading numerical grade Medul level graduate												
	ECTS 6	Duratio	n 1 semeste	er	Method of grading numerical grade	Modul level	graduate						
	Courses	·	V (3) + R (1)										
			Module taught in: German or English										
	Method of	assessment	b) oral examinat c) oral examinat d) project report e) presentation/	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: Once a year, winter semester									
			form of an oral e the lecturer mus Language of ass Assessment offe										
11-OHL-161-m01		miconducto											
	ECTS 6	Duratio		er	Method of grading numerical grade	Modul level	graduate						
	Courses			V (3) + R (1) Module taught in: German or English									
	method of	assessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is change the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the subsequent semester										
11-HNS-161-mo1		perties of Se	miconductor Nan	ostruc	tures								
	ECTS 6	Duratio		er	Method of grading numerical grade	Modul level	graduate						
	Courses		V (3) + R (1) Module taught in: German or English										
	Method of	assessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the subsequent semester										

11-ENT-152-m01	Princip	les of Er	nergy Tec	hnolog	gies										
- L	ECTS	6	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate						
	Course	S	,		V (3) + R (1)										
					Module taught in: German or English										
	Method	d of asse	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or											
					c) oral examination in groups (groups of 2, approx. 30 minutes) or										
				d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes)											
					If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the										
					form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest.										
				Langu	nguage of assessment: German and/or English										
					ssessment offered: Once a year, winter semester										
	Referre	d to in L	PO I	§ 22 Nr. 1 h) § 22 Nr. 2 f)											
					3 22 II Nr. 3 f)										
Thesis (30 ECTS cre	edits)			<u> </u>											
08-FU-MT-161-m01	Master	Thesis	Function	al Mate	erials										
	ECTS	25	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate						
	Course	5	•	No co	urses assigned to	module		*	-						
	Method	of asse	essment		er's thesis (approx										
						t: German and/or Engl	ish								
			rmation	Time	to complete: 6 mo	nths.									
08-FU-Koll-161-			Defense		r										
mo1	ECTS	5	Duration												
	Course	_		K (o)											
	Method	d of asse	essment	final colloquium (approx. 60 minutes): talk (approx. 30 minutes) with subsequent discussion (approx. 30 minutes) Language of assessment: German and/or English											
	Module comple	es succe eted	ssfully	o8-FU-MT											