

Annex SFB

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

Responsible: Faculty of Physics and Astronomy

Examination regulations version: 2020

Abbreviations used: Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **V** = lecture

Term: **SS** = summer semester, **WS** = winter semester

Tomic School Sch

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: $\mathbf{A} = \text{thesis}$, $\mathbf{LV} = \text{course}(s)$, $\mathbf{PL} = \text{assessment}(s)$, $\mathbf{TN} = \text{participants}$, $\mathbf{VL} = \text{prerequisite}(s)$

Conventions for the modules in this SFB:

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Information on assessment procedures:

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

06-Feb-2020 (2020-16)

09-Jun-2021 (2021-63)

o6-Sep-2022 (2022-55)

12-Jun-2024 (2024-75)

14-Nov-2024 (2024-97)

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 sp	To 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 o		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	n LPO I	if applica	if applicable (examination regulations for teaching-degree programmes)								

Electives Field (60	Electives Field (60 ECTS credits)											
Subfield Physics (5	5 ECTS credits)											
Advanced Laborato	ry Courses (9 E	CTS credi	ts)									
11-P-FM1-Int-201-	Advanced Lab	oratory Co	ourse N	Naster Part 1								
mo1	ECTS 3	Duratio	n	1 semester	Method of grading	(not) successfully comple	ted Modul level	graduate				
	Courses		P (3) Modu	le taught in: English								
	Method of ass	sessment	Stude an ex perim modu	practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two experiments to be considered to have successfully completed this module. Detailed regulations are laid down in the respective module description. Language of assessment: English								
	other prerequi			Preparation and safety briefing.								
11-P-FM2-Int-201-		oratory Co	ourse Master Part 2									
mo1	ECTS 3 Duration			1 semester	Method of grading	(not) successfully comple	ted Modul level	graduate				
	Courses		P (3) Modu	le taught in: English	1							
	Method of assessment		practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication an experiment to be considered to have successfully completed this experiment. Students must successfully complete two periments to be considered to have successfully completed this module. Detailed regulations are laid down in the respect module description. Language of assessment: English					nust successfully complete two ex-				
	other prerequi	isites	Preparation and safety briefing.									
11-P-FM3-Int-201-	Advanced Lab	oratory Co	ourse N	Naster Part 3			,					
mo1	ECTS 3	Duratio		1 semester	Method of grading	(not) successfully comple	ted Modul level	graduate				
	Courses		P (3) Module taught in: English									
	Method of assessment		practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two experiments to be considered to have successfully completed this module. Detailed regulations are laid down in the respective module description. Language of assessment: English									
	other prerequi	isites	Prepa	ration and safety br	iefing.							

11-P-FM4-Int-201-	Advanced Laboratory Course Master Part 4											
mo1	ECTS	3	Duration	1	1 semester	Method of grading	(not) successfully completed	Modul level	graduate			
	Courses	5	•	P (3) Modu	le taught in: English	h						
				Stude an ex perim modu Langu	practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two ex- periments to be considered to have successfully completed this module. Detailed regulations are laid down in the respective module description. Language of assessment: English							
	other prerequisites			Prepa	ration and safety bi	riefing.						
Advanced Seminar		•										
11-OSP-A-Int-201-			inar Phys									
mo1	ECTS	5	Duratio	,	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses				le taught in: English							
	Method	of asse	essment		talk with discussion (30 to 45 minutes) Language of assessment: English							
11-OSP-B-Int-201-	Advanced Seminar Physics B											
mo1	ECTS 5 Duratio				1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	Courses			S (2) Module taught in: English							
	Method	of asse	essment	talk with discussion (30 to 45 minutes) Language of assessment: English								
Experimental Phys	ics (10 E0	CTS cre	dits)									
11-BSV-Int-201-	Image a	ınd Sig	nal Proce	ssing i	n Physics							
mo1	ECTS	6	Duratio	n n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	5		V (2) + Ü (2) Module taught in: English								
	Method	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 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-OHL-Int-201-	Organic Semiconductors ECTS 6 Duration 4 competer Method of grading numerical grade Medul level graduate											
mo1	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S	_		V (3) + R (1) Module taught in: English							
				b) ora c) ora d) pro e) pro If a w form the le Langu Asses	written examination (approx. 90 to 120 minutes) or oral examination of one candidate each (approx. 30 minutes) or oral examination in groups (groups of 2, approx. 30 minutes per candidate) or project report (approx. 8 to 10 pages) or presentation/talk (approx. 30 minutes) 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, ne lecturer must inform students about this by four weeks prior to the original examination date at the latest. Seessment offered: In the semester in which the course is offered and in the subsequent semester							
11-PMM-Int-201-	Physic		anced Ma	aterial	s							
mo1	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			(3) + R (1) odule taught in: English							
			essment	b) ora c) ora d) pro e) pro If a w form the lo Lango	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 ifform of an oral examination of one candidate each or an oral examination in groups. If the method of assessment electurer must inform students about this by four weeks prior to the original examination date at the late Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-SPI-Int-201-m01												
	ECTS	6	Duration		1 semester	Method of grading numerical grade	Modul level	graduate				
	Course			V (3) + R (1) Module taught in: English								
	Method	d of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-FK2-Int-201-m01	Solid S	tate Ph	ysics 2							
	ECTS	8	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate		
	Course	S			+ R (2) le taught in: English	1	•			
	Method	d of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						
	other p	rerequi	sites	Appro	oval from examination	on committee required.				
11-FKS-Int-201-m01	Solid S	tate Sp	ectrocopy							
	ECTS	6	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate		
	Course	S		V (3) - Modu	+ R (1) lle taught in: English	1				
	Method	d of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						

11-MAG-Int-201-	Magnetism										
mo1	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	·		V (3) + R (1) Module taught in: English							
	Method of as	sessment	a) wr	a) written examination (approx. 90 to 120 minutes) or							
			c) ora	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
			If a w form the le								
11-HNS-Int-201-	Optical Prope	erties of Se	micon	ductor Nanostruct	ures	· · · · · · · · · · · · · · · · · · ·					
mo1	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			(3) + R (1) odule taught in: English							
	Method of as		b) ora c) ora d) pro e) pro If a w form the le Lang Asse	al examination of o al examination in groject report (approsesentation/talk (approsentation) of an oral examination of an oral examinatecturer must informuage of assessmen	n examination (approx. 90 to 120 minutes) or camination of one candidate each (approx. 30 minutes) or camination in groups (groups of 2, approx. 30 minutes per candidate) or camination in groups (groups of 2, approx. 30 minutes per candidate) or cat report (approx. 8 to 10 pages) or cataion/talk (approx. 30 minutes). Sen examination was chosen as method of assessment, this may be changed and assessment run oral examination of one candidate each or an oral examination in groups. If the method of a rer must inform students about this by four weeks prior to the original examination date at the e of assessment: English the necessary of the subsequent semester in which the course is offered and in the subsequent semester						
11-HPH-Int-201-	Semiconduct	or Physics									
mo1	ECTS 6	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses		V (3) + R (1) Module taught in: 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). 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-QTR-Int-201-	Quantu	ım Tran	sport									
mo1	ECTS	6	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) - Modu	+ R (1) lle taught in: English	1						
	Method	d of ass		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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-QIC-Int-201-m01	Assessment offered: In the semester in which the course is offered and in the subsequent semester Advanced Theory of Quantum Computing and Quantum Information											
<u></u>	Advanced Theory of ECTS 6 Dura Courses Method of assessme			1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) - Modu	+ R (1) lle taught in: English	1						
	Method			b) ora c) ora d) pro e) pre If a wif 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 if form of an oral examination of one candidate each or an oral examination in groups. If the method of asses the lecturer must inform students about this by four weeks prior to the original examination date at the late Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-NOP-Int-201-	Nano-C	Optics										
mo1	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Method	d 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-PTS-Int-201-	Phenomen	ology and Th	eory o	f Superconductivi	ty						
mo1	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	,		V (3) + R (1) Module taught in: English							
	Method of	assessment	b) ora c) ora d) pro e) pro If a w form 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
08-PCM4-161-m01	Ultrafast spectroscopy and quantum-control										
•	ECTS 5	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			S (2) + Ü (1) Module taught in: German or English							
	Method of	assessment	b) ora	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							
	other prere	equisites	Prior	Prior completion of modules o8-PCM1a and o8-PCM1b recommended.							
11-CSFM-Int-201-	Advanced Topics in Solid State Physics										
mo1	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			V (3) + R (1) Module taught in: English							
			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: English								
	other prere	equisites	Appro	oval from examina	tion committee required.						

Į.	Methods of Observational Astronomy												
mo1	ECTS	6	Duration	1 56	emester	Method of grading numerical grade	Modul level	graduate					
	Courses	S		V (3) + R (:			*						
				Module taught in: English									
	Method	d of ass	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											
						was chosen as method of assessment, this may be tion of one candidate each or an oral examination it							
				the lecture	er must inform	students about this by four weeks prior to the origi							
					of assessmen								
TDE L	-	Assessment offered: In the semester in which the course is offered and in the subsequent semester Experimental Particle Physics											
į.				<u> </u>		Make defended and an advantage of the second and a second a second and	NA 1 - 1 1	Lawadiyata					
		6	Duration		emester	Method of grading numerical grade	Modul level	graduate					
	Courses	S 		V (3) + R (3 Module ta	1) lught in: Englis	h		_					
	Method	d of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester									
11-ASP-Int-201-	Introdu	ction to	Space Ph	ysics									
mo1	ECTS	6	Duration	1 56	emester	Method of grading numerical grade	Modul level	graduate					
	Courses	S		V (3) + R (1)									
				Module taught in: English a) written examination (approx. 90 to 120 minutes) or									
	Method	of ass	essment	a) written	examination (a	approx. 90 to 120 minutes) or ne candidate each (approx. 30 minutes) or							
						oups (groups of 2, approx. 30 minutes per candida	te) or						
				d) project	d) project report (approx. 8 to 10 pages) or								
				e) present	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: English									
				Assessme	ent offered: In t	the semester in which the course is offered and in the	ne subsequent se	emester					

11-MAS-Int-201-	Multi-wavelength Astronomy											
mo1	ECTS 6	Duratio	n 1 seme	ster	Method of grading numerical grade	Modul level	graduate					
	Courses	·	V (3) + R (1)			,						
			Module taught in: 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									
				oral examination of one candidate each (approx. 30 minutes) of oral examination in groups (groups of 2, approx. 30 minutes per candidate) or								
			d) project report (approx. 8 to 10 pages) or									
			e) presentation	n/talk (ap	oprox. 30 minutes) was chosen as method of assessment, this may	he changed and ac	coccment may instead take the					
			form of an ora	allillation Il examina	ition of one candidate each or an oral examinatio	n in groups. If the m	nethod of assessment is changed.					
			the lecturer m	ust inform	n students about this by four weeks prior to the or							
			Language of a									
11-CSAM-Int-201-	Advensed To	ica in Acti		rrerea: In	the semester in which the course is offered and in	n the subsequent so	emester					
11-C5AM-IIII-201- mo1	Advanced Top	Duration		ctor	Mothod of grading numerical grade	Modul level	graduata					
11101		Duratio		Ster	Method of grading numerical grade	Modul level	graduate					
	Courses			V (3) + R (1) Module taught in: 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									
					x. 8 to 10 pages) or opprox. 30 minutes).							
			If a written ex	If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the								
			form of an ora	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.								
			the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English									
	other prerequ	isites	Approval from examination committee required.									
11-MRI-Int-201-			onance Imagir		1							
mo1	ECTS 6	Duration			Method of grading numerical grade	Modul level	graduate					
	Courses	,	V (3) + R (1)		·	•						
			Module taught in: English									
	Method of as	sessment	a) written exa	mination	(approx. 90 to 120 minutes) or							
			c) oral examir	nation of c	one candidate each (approx. 30 minutes) or roups (groups of 2, approx, 30 minutes per candi	date) 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: English									
			Assessment o	ttered: In	the semester in which the course is offered and in	n the subsequent s	emester					

11-SSC-Int-201-	Surface	e Scienc	:e									
mo1	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	!S		Modu V (3) -	+ R (1) le taught in: English	1						
	Method	d of ass		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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-BIC-Int-201-m01	Assessment offered: In the semester in which the course is offered and in the subsequent semester Basic Imaging Concepts											
į	ECTS 6 Durat Courses Method of assessmen Basic Imaging Reconse ECTS 6 Durat		Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	!S		V (3) - Modu	+ R (1) le taught in: English	1		•				
	Wethor	a 01 u33		b) ora c) ora d) pro e) pre If a wi form of the le Langu	l examination in gro oject report (approx. sentation/talk (app ritten examination v of an oral examinati cturer must inform s uage of assessment	ne candidate each (approx. 30 minutes) or roups (groups of 2, approx. 30 minutes per candidate) or x. 8 to 10 pages) or prox. 30 minutes). was chosen as method of assessment, this may be changed and assessment may insteation of one candidate each or an oral examination in groups. If the method of assessment students about this by four weeks prior to the original examination date at the latest.						
11-IRP-Int-201-m01	Basic I	maging	Reconstri	ıction	and Processing	-		1				
	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	!S		V (3) + R (1) Module taught in: English								
	Method	d 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-CAP-Int-201-	Contemporary Astrophysics											
mo1	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	S	,		V (3) + R (1) Module taught in: English							
	Method	d of ass	essment	b) ora c) ora d) pro e) pro If a w form the lo Lango	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-AAI-Int-201-m01	Advanc	ed Astı	ro Imaging	3								
	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	S			+ R (1) ule taught in: Englis	sh	·					
	Method	1 01 ass	essment	b) ora c) ora d) pro e) pro If a w form the lo Lange	of an oral examinatecturer must informuse age of assessmen							
11-CTA-Int-201-	Assessment offered: In the semester in which the course is offered and in the subsequent semester Advanced Computer Tomography											
mo1	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	S		V (3) + R (1) Module taught in: English								
	Method	d of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-EIM-Int-201-	Electron and Ion Microscopy											
mo1	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S	-	V (3) - Modu	+ R (1) le taught in: Engli	sh						
	Method of assessment			b) ora c) ora d) pro e) pre If a wi form of the le Langu	written examination (approx. 90 to 120 minutes) or oral examination of one candidate each (approx. 30 minutes) or oral examination in groups (groups of 2, approx. 30 minutes per candidate) or project report (approx. 8 to 10 pages) or presentation/talk (approx. 30 minutes) 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, ne lecturer must inform students about this by four weeks prior to the original examination date at the latest. anguage of assessment: English assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-SPT-Int-201-	Scanni	ng Prob	e Techno	logies	ries							
mo1	ECTS 6 Duratio			n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (3) + R (1) Module taught in: English								
	Method of assessment			b) ora c) ora d) pro e) pre If a wi form o the le Langu	a) written examination (approx. 90 to 120 minutes) or coloral examination of one candidate each (approx. 30 minutes) or coloral examination in groups (groups of 2, approx. 30 minutes per candidate) or coloral examination in groups (groups of 2, approx. 30 minutes per candidate) or coloral examination (approx. 8 to 10 pages) or coloral examination/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. Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-FPA-Int-201-m01		g Resea										
	ECTS	10	Duration			Method of grading numerical grade	Modul level	graduate				
				R (o) Module taught in: English								
				project report (approx. 10 to 20 pages) Language of assessment: English								
			Appro	Approval from examination committee required.								

11-EXE5-Int-201-	Current Topic	Current Topics in Experimental Physics										
mo1	ECTS 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate					
	Courses		V (2) + Modu	R (2) le taught in: English	1	-						
	Method of as	sessment	b) ora c) oral d) pro e) pre- If a wr form o	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: English								
	other prerequ	uisites	Appro	val from examination	on committee required.							
11-EXE6-Int-201-	Current Topic	cs in Experi	imental	l Physics								
mo1	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate					
	Courses			/ (3) + R (1) Module taught in: English								
	Method of as		b) ora c) oral d) pro e) pres If a wr form o the led 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 form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is chattel lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English								
	other prerequ		Approval from examination committee required.									
11-EXE7-Int-201-	Current Topic				1							
mo1	ECTS 7 Courses	Duratio	V (3) +	1 semester - R (1) le taught in: English	Method of grading numerical grade	Modul level	graduate					
	Method of as		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: English									
	other prerequ	uisites	Approval from examination committee required.									
Master's with 1 major Pl	nysics International (2	2020)			JMU Würzburg • generated 19-Apr-2	025 • exam. reg. data	record 88 j44 - - H 2020 page 15 / 40					

Curren	t Topics	in Experi	mental Physics								
ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate				
Course	S			glish							
Method of assessment			a) written examination of c) oral examination of c) oral examination in d) project report (apple) presentation/talk of a written examinatiform of an oral examination the lecturer must info	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 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 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.							
				nation committee require	d.						
			<u>. </u>								
ECTS	6	J		Method of grading	numerical grade	Modul level	graduate				
Course	S										
Method of assessment			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 form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is chattee lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English								
<u> </u>			Approval from examination committee required.								
				Method of grading	numerical grade	Modul level	graduate				
Method	d of ass	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: English								
	other p Curren ECTS Course Method other p Curren ECTS Course Method	ECTS 8 Courses Method of ass other prerequi Current Topics ECTS 6 Courses Method of ass other prerequi Current Topics ECTS 6 Courses Method of ass	ECTS 8 Duration Courses Method of assessment other prerequisites Current Topics in Experi ECTS 6 Duration Courses Method of assessment other prerequisites Current Topics in Physic ECTS 6 Duration Courses Method of assessment	Nethod of assessment Nethod of assessment Approval from examination or c) oral examination or color oral examination or c) oral exa	Courses	ECTS 8 Duration 1 semester Method of grading numerical grade	Courses				

Theoretical Physics	s (10 ECT:	S credit	ts)								
11-QM2-Int-201-	Quantu	m Mech	nanics II								
mo1	ECTS	8	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	5	,		V (4) + R (2) Module taught in: English						
				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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-TQO-Int-221-	Theoretical Quantum Optics										
mo1	ECTS 8 Duration		n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (4) + R (2) Module taught in: 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							

11-RTT-Int-201-m01	Theory	of Rela	tivity	,								
	ECTS	6	Duration	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	·S			V (3) + R (1) Module taught in: English							
	Method	d of ass	essment	b) ora c) ora d) pro e) pro If a w form the lo Lange	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-RMFT-Int-201-	Renorn	nalizati	on Group	Metho	ds in Field Theory							
mo1	ECTS	8	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S	,		Y (4) + R (2) Module taught in: English							
				b) ora c) ora d) pro e) pro If a w form the le Langu Asses	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 inst form of an oral examination of one candidate each or an oral examination in groups. If the method of assessm the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: Once a year as announced							
11-PKS-Int-201- mo1			nplex Sys									
mor	ECTS Course	6 s	Duration	n 1 semester Method of grading numerical grade Modul level graduate V (2) + R (2) Module taught in: English								
	Method	d of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-QIC-Int-201-m01	Advanc	ed The	ory of Qua	ntum Computing	g and Qu	antum Information						
	ECTS	6	Duration		er	Method of grading	numerical grade	M	odul level	graduate		
	Course	S		V (3) + R (1) Module taught i	n: Englis	h						
	Method	d 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								
11-TFK-Int-201-m01	Theore	tical So	lid State P	hysics								
	ECTS	8	Duration	1 semest	er	Method of grading	numerical grade	M	odul level	graduate		
	Course	S		V (4) + R (2) Module taught i								
	Method	or 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 form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester					ethod of assessment is changed, date at the latest.			
11-TFK2-Int-201-			lid State P									
mo1	ECTS	8	Duration		er	Method of grading	numerical grade	M	odul level	graduate		
	Course			V (4) + R (2) Module taught i								
	Method	d 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-TEFK-Int-201-	Topolog	Topological Effects in Solid State Physics												
mo1	ECTS	8	Duration)	1 semester	Method of grading numerical grade	Modul level	graduate						
	Courses	5			+ R (2)									
					le taught in: Englis									
	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).										
						prox. 30 minutes). was chosen as method of assessment, this may	he changed and ass	sessment may instead take the						
				form (of an oral examina	tion of one candidate each or an oral examinatio	on in groups. If the m	ethod of assessment is changed,						
						students about this by four weeks prior to the o	riginal examination	date at the latest.						
					lage of assessmer	it: English the semester in which the course is offered and i	in the subsequent se	amester						
11-FFK-Int-201-m01	Field Th	eory in				the semester in which the course is offered and i	in the subsequent se							
!		8	Duration		1 semester	Method of grading numerical grade	Modul level	graduate						
	Courses				+ R (2)		1112 3 3 1 1 2 1 2 1	3						
					Nodule taught in: English									
	Method	l 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) pre	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: English										
				Assessment offered: In the semester in which the course is offered and in the subsequent semester										
1 1					Solid State Physi									
11101		6	Duration		1 semester	Method of grading numerical grade	Modul level	graduate						
	Courses	5		V (3) + R (1) Module taught in: English										
	Method	l of ass				approx. 90 to 120 minutes) or								
				b) ora	l examination of o	ne candidate each (approx. 30 minutes) or								
				c) ora	l examination in g	roups (groups of 2, approx. 30 minutes per candi	idate) 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: English										
					Assessment offered: In the semester in which the course is offered and in the subsequent semester									

11-CMS-Int-201-	Compu	tational	l Material:	s Science (DFT)							
mo1	ECTS	8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	S		V (4) - Modu	R (2) le taught in: English	1					
	Method	d of asso		b) ora c) ora d) pro e) pre If a wr 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						
11-KFT-Int-201-m01	Confor	mal Fiel	d Theory								
	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	S		V (3) + Modu	- R (1) le taught in: English	1					
		a 0 1 u 33.		b) ora c) ora d) pro e) pre If a wr form of the le Langu	of an oral examinati cturer must inform s lage of assessment:	ay be changed and ass tion in groups. If the me e original examination o					
11-KFT2-Int-201-	Assessment offered: In the semester in which the course is offered and in the subsequent semester Conformal Field Theory 2										
mo1	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	!S		V (3) + R (1) Module taught in: English							
	Method	d of asso		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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							

11-GRTM-Int-201-	Group	Theory									
mo1	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	S			V (3) + R (1)						
					le taught in: Englis						
	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 per candidate) or d) project report (approx. 8 to 10 pages) or							
				e) pre	sentation/talk (app	orox. 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: English							
				Assessment offered: In the semester in which the course is offered and in the subsequent semester							
	other p	rerequis	sites			on committee require		,			
11-TPSM-Int-201-	Particle Physics (Standard Model)										
mo1	ECTS 6 Duratio		n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (3) + R (1)							
				Module taught in: 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							
) 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) pre	sentation/talk (app	orox. 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: English							
				Assessment offered: In the semester in which the course is offered and in the subsequent semester							
	other p	rerequis	sites	Approval from examination committee required.							

11-CRP-Int-201-	Renorma	lization Group	and Critical Phenomen	a							
mo1	ECTS 6	Duratio	n 1 semester	Method of grading numerical grade	Modul level	graduate					
	Courses		V (3) + R (1)		•						
			Module taught in: Eng								
	Method o	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).							
				on was chosen as method of assessment, this may nation of one candidate each or an oral examination							
				m students about this by four weeks prior to the o							
			Language of assessme	ent: English							
				n the semester in which the course is offered and	in the subsequent se	emester					
11-BWW-Int-201-			actions in One Dimension								
mo1	ECTS 6	Duratio		Method of grading numerical grade	Modul level	graduate					
	Courses		V (3) + R (1) Module taught in: English								
	Method o	of assessment		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 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								
2001											
11-GGD-Int-201- mo1			Gravity Duality	The state of the s	[A	1					
mor	ECTS 8	Duratio		Method of grading numerical grade	Modul level	graduate					
	Courses		V (4) + R (2) Module taught in: English								
	Method o	of assessment	a) written examination	(approx. 90 to 120 minutes) or							
				one candidate each (approx. 30 minutes) or	lidata) 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: English								
			Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-AKM-Int-201-	Cosmology	'				,					
mo1	ECTS 6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses	·		+ R (1)		,					
				Module taught in: 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) pro	oject report (appro	x. 8 to 10 pages) or						
					oprox. 30 minutes). I was chosen as method of assessment, this ma	v he changed and ass	sessment may instead take the				
			form	of an oral examina	ation of one candidate each or an oral examinati	on in groups. If the m	ethod of assessment is changed,				
					n students about this by four weeks prior to the	original examination	date at the latest.				
				uage of assessmer	nt: English the semester in which the course is offered and	in the subsequent so	amester				
11-AST-Int-201-	Theoretical A	stronhysic		33ment onerea. m	the semester in which the course is offered and	Till tile subsequent so					
mo1	ECTS 6	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			+ R (2)			10				
				Module taught in: 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							
					one candidate each (approx. 30 minutes) or groups (groups of 2, approx. 30 minutes per cand	didate) 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: English							
			the le								
EDD L	Assessment offered: In the semester in which the course is offered and in the subsequent semester Introduction to Plasma Physics										
11-EPP-Int-201-			<u> </u>	1	Made defending from the	Mandallanal	Lawadusta				
	ECTS 6	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses		V (2) + R (2) Module taught in: English								
	Method of as	sessment			(approx. 90 to 120 minutes) or						
			b) or	al examination of o	one candidate each (approx. 30 minutes) or						
					groups (groups of 2, approx. 30 minutes per cand	didate) 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: English								
				Assessment offered: In the semester in which the course is offered and in the subsequent semester							

11-APL-Int-201-	High-En	nergy As	strophysi	cs						
mo1	ECTS	6	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses	5		V (3) + Modu	R (1) le taught in: English	<u> </u>				
	Method	of asse		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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						
11-NMA-Int-201-	Computational Astrophysics									
mo1	ECTS 6 Duratio		Duration	า	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses			V (3) + R (1) Module taught in: English						
	Method of assessment			b) ora c) ora d) pro e) pre If a wr form o the le Langu	I examination of one I examination in gro ject report (approx. sentation/talk (app itten examination w of an oral examinatio cturer must inform s lage of assessment:	e candidate each (ap ups (groups of 2, app 8 to 10 pages) or rox. 30 minutes). vas chosen as metho on of one candidate of students about this b English	prox. 30 minutes) or prox. 30 minutes per candidate do of assessment, this may be c	hanged and ass groups. If the m al examination (

11-QFT1-Int-201-	Quantum Field Theory I											
mo1	ECTS	8	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S	·		V (4) + R (2) Module taught in: English							
	Method	l of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								
	other prerequisites			Appro	oval from examinat	ion committee require	ed.					
11-QFT2-Int-201-	Quantu	m Field	Theory II					,				
mo1	ECTS	8	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (4) + R (2) Module taught in: 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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-TEP-Int-201-m01	Theoretical Elementary Particle Physics												
	ECTS	8	Duration	1 semester	Method of grading numerical grade	Modul level	graduate						
	Course	S		V (4) + R (2) Module taught in: Eng	glish								
	Method	d of asso		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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester									
11-ATTP-Int-201-	Selecte	d Topic	s of Theor	retical Elementary Par	ticle Physics								
mo1	ECTS 6 Duratio			1 semester	Method of grading numerical grade	Modul level	graduate						
	Course	S		V (3) + R (1) Module taught in: English									
				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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester									
11-BSM-Int-201-				idard Model of Elemer									
mo1	ECTS	6	Duration		Method of grading numerical grade	Modul level	graduate						
	Course			V (3) + R (1) Module taught in: English									
	Method	d of asse		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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester									

11-STRG1-Int-201-	String Theory 1											
mo1	ECTS	8	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			V (4) + R (2) Module taught in: English							
	Motho	d of acc	sessment									
	Metho	u 01 a55	essillelli	b) or	a) written examination (approx. 90 to 120 minutes) or b) 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 w	ritten examination	n was chosen as method of assessment, this may	y be changed and as:	sessment may instead take the				
				form	of an oral examina	ation of one candidate each or an oral examination	on in groups. If the m	ethod of assessment is changed,				
					ecturer must inforr uage of assessme	n students about this by four weeks prior to the o	original examination	date at the latest.				
						the semester in which the course is offered and	in the subsequent se	emester				
11-STRG2-Int-201-	String	Theory	2		1		· · · · · · · · · · · · · · · · · · ·					
mo1	ECTS	6	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	·S			/ (3) + R (1) Module taught in: English							
	Metho	d of ass	essment	a) wr	a) written examination (approx. 90 to 120 minutes) or							
				b) 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: English							
				Lang								
				Assessment offered: In the semester in which the course is offered and in the subsequent semester								
11-RAI-Int-211-m01			mical Inte									
	ECTS	6	Duratio		1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	!S		V (3) + R (1) Module taught in: English								
	Metho	d of ass	essment	a) wr	itten examination	(approx. 90 to 120 minutes) or						
						one candidate each (approx. 30 minutes) or	didata) 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: English								
				Asse	ssment offered: In	the semester in which the course is offered and	in the subsequent se	emester				

11-SLQ-Int-241-	Black H	loles	1			-					
mo1	ECTS	6 Du	ration	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (3) + R (1) Module taught in: English							
	Method	d of assessi	b) c) d) e) If fo th La	a) written examination (approx. 90 to 120 minutes) or o) oral examination of one candidate each (approx. 30 minutes) or 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 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. Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-TPSM-Int-211-	Particle	Physics (S	tandard	l Model)							
mo1	ECTS	8 Du	ration	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			V (4) + R (2) Module taught in: English							
	Method of assessment			oral examination of oral examination of oral examination in project report (app) presentation/talk (a written examination of an oral examine lecturer must infoanguage of assessmessessment offered:	In the semester in which the course is offered	may be changed and as nation in groups. If the m the original examination	nethod of assessment is changed, date at the latest.				
		rerequisite	S Ap	pproval from examin	nation committee required.						
11-FPA-Int-201-m01											
	ECTS		ration		Method of grading numerical grade	Modul level	graduate				
	Courses			R (o) Module taught in: English							
	Method of assessment			project report (approx. 10 to 20 pages) Language of assessment: English							
	other p			Approval from examination committee required.							

11-EXT5-Int-201-	Current Topi	cs of Theor	etical Physics				-				
mo1	ECTS 5	Duratio	n 1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (2) + R (2) Module taught in: English								
	Method of as	ssessment	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: English								
	other prereq	uisites	Approval from examina	tion committee require	ed.						
11-EXT6-Int-201-	Current Topi	cs of Theor	etical Physics								
mo1	ECTS 6	Duratio	n 1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses	,	V (3) + R (1) Module taught in: Engli								
			c) oral examination in g d) project report (appro e) presentation/talk (ap If a written examination form of an oral examina the lecturer must inform Language of assessme	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 form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed to the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other prereq		Approval from examination committee required.								
11-EXT7-Int-201-	Current Topics of Theoretical Physics										
m01	ECTS 7 Courses	Duration	n 1 semester V (3) + R (1) Module taught in: Engli	Method of grading	numerical grade	Modul level	graduate				
	Method of as		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: English								
	other prereq	uisites	Approval from examina	tion committee require	ed.						
Master's with 1 major F	Physics International (2020)			JMU Würzburg • generate	d 19-Apr-2025 • exam. reg. data	record 88 j44 - - H 2020 page 30 / 40				

11-EXT8-Int-201-	Current	Topics o	f Theore	tical Physics				-			
mo1	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (4) + R (2) Module taught in: English							
	Method	of asses		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: English							
	other pre	erequisi	tes	Approval from examin	ation committee require	ed.					
11-EXT6A-Int-201-	Current '	Topics o	f Theore	tical Physics							
mo1	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (3) + R (1) Module taught in: English							
				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 form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is ch the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other pre	erequisi	tes	Approval from examination committee required.							
11-EXP6A-Int-201-	Current Topics in Physics										
mo1	ECTS Courses			1 semester V (3) + R (1) Module taught in: Eng	Method of grading	numerical grade	Modul level	graduate			
	Method		ssment	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: English							
	other pre	erequisi	tes	Approval from examin	ation committee require	ed.					
Master's with 1 major Ph	vsics Internati	ional (2020))			JMU Würzburg • generat	ed 19-Apr-2025 • exam. reg. data	record 88 j44 - - H 2020 page 31 / 40			

11-APM-Int-241-	Astroph	ysics									
mo1	ECTS	6	Duration	ı	1 semester	Method of grading numerical grade		Modul level	graduate		
	Courses	i			V (2) + R (2) Module taught in: English						
	Method	of ass	essment	b) ora c) ora d) pro e) pro If a w form the le Lange	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						
11-ATP-Int-241-m01	Atmosp	heric P	hysics								
	ECTS	6	Duration	1	1 semester	Method of grading numerical grade		Modul level	graduate		
	Courses	i			+ R (2) ıle taught in: Engli	sh			•		
	method	01 433	essment	b) ora c) ora d) pro e) pro If a w form the le Lange	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 form of an oral examination of one candidate each or an oral examination in groups. If the method of assest the lecturer must inform students about this by four weeks prior to the original examination date at the la Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						
11-0QS-Int-241-	Open Qu	uantun	n Systems	5							
mo1	ECTS	6	Duration		1 semester	Method of grading numerical grade		Modul level	graduate		
	Courses	i		V (3) + R (1) Module taught in: English							
	Method	of ass	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: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							

Subfield Non-Phys	ical Mind	ors										
10-M-OR-	Operati	ions Res	earch fo	r stude	nts of other subject	S						
Saf-152-mo1	ECTS	10	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	s		V (4) +	+ Ü (2)							
	Method of assessment			b) ora c) ora Langu Asses	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 Assessment offered: In the semester in which the course is offered and in the subsequent semester creditable for bonus							
10-M-VAN-152-m01	Advanc	ed Anal	ysis									
	ECTS	7	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	S		V (4) +	+ Ü (2)							
	Method of assessment			b) ora c) ora Langu	l examination of one l examination in gro	e candidate each (15	to 15 minutes per candidate)					
10-M=AAA-	Applied	l Analys	is									
Nin-152-m01	ECTS 10 Duratio		Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	Courses			V (4) + Ü (2) Module taught in: English							
	Method of assessment			b) ora c) ora Langu Asses	l examination of one l examination in gro lage of assessment:	e candidate each (ap ups (groups of 2, 15 r English	utes, usually chosen) or prox. 20 minutes) or minutes) or minutes per candidate) the course is offered and in th	ne subsequent so	emester			
10-M=ADG-	Differer	ntial Ge	ometry					,				
Min-152-m01	ECTS	10	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	S		V (4) + Ü (2) Module taught in: English								
	Method of assessment			b) ora c) ora Langu Asses	written examination (approx. 90 to 120 minutes, usually chosen) or oral examination of one candidate each (approx. 20 minutes) or oral examination in groups (groups of 2, 15 minutes per candidate) anguage of assessment: English assessment offered: In the semester in which the course is offered and in the subsequent semester editable for bonus							

10-M=AFT-	Comple	ex Analy	/sis										
Hin-152-m01	ECTS	10	Duration	ı	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	!S			/ (4) + Ü (2) Module taught in: English								
	Method	d of ass	essment	b) ora c) ora Langu Asses) written examination (approx. 90 to 120 minutes, usually chosen) or) oral examination of one candidate each (approx. 20 minutes) or) oral examination in groups (groups of 2, 15 minutes per candidate) anguage of assessment: English ssessment offered: In the semester in which the course is offered and in the subsequent semester reditable for bonus								
10-M=AL-	Lie The	eory											
THin-152-m01	ECTS	10	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	!S			+ Ü (2) le taught in: Englis	sh							
	Method	d of ass	essment	b) ora c) ora Langu Asses) written examination (approx. 90 to 120 minutes, usually chosen) or) oral examination of one candidate each (approx. 20 minutes) or) oral examination in groups (groups of 2, 15 minutes per candidate) anguage of assessment: English ssessment offered: In the semester in which the course is offered and in the subsequent semester reditable for bonus								
10-M=ATO-	Topolo	Topology											
Pin-152-mo1	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses				V (4) + Ü (2) Module taught in: English								
	Method of assessment			b) ora c) ora Langu Asses	l examination of o l examination in gr lage of assessmen	ne candidate each (ap oups (groups of 2, 15 t: English	minutes per candidate		emester				
10-M=AZTHin-152-		r Theor	у										
mo1	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	!S		V (4) + Ü (2) Module taught in: English									
	Method	d of ass	essment	b) ora c) ora Langu Asses	l examination of o l examination in gr lage of assessmen	red: In the semester in which the course is offered and in the subsequent semester							

10-M=VGD-	Groups	and the	ir Repres	sentati	ons							
Sin-152-m01	ECTS	10	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	5			/ (4) + Ü (2) Module taught in: English							
	Method	of asse	essment	b) ora c) ora Langu Asses	a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester creditable for bonus							
10-M=VGE-	Geomet	rical M	echanics									
Min-152-m01	ECTS	10	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	5			(4) + Ü (2) Nodule taught in: English							
	Method	of asse	essment	b) ora c) ora Langu Asses) written examination (approx. 90 to 120 minutes, usually chosen) or) oral examination of one candidate each (approx. 20 minutes) or) oral examination in groups (groups of 2, 15 minutes per candidate) anguage of assessment: English assessment offered: In the semester in which the course is offered and in the subsequent semester reditable for bonus							
10-M=VN-	Numeric of Partial Differential Equations											
PEin-152-m01	ECTS 10 Duratio				1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (4) + Ü (2) Module taught in: English								
	Method of assessment			a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester creditable for bonus								
10-M=VDI-	Discrete	e Mathe	matics					,				
Min-152-mo1	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	5		V (3) + Ü (1) Module taught in: English								
	Method	of asse	essment	b) ora c) ora Langu Asses	l examination of one l examination in gro lage of assessment:	mination (approx. 60 to 90 minutes, usually chosen) or nation of one candidate each (approx. 15 minutes) or nation in groups (groups of 2, approx. 10 minutes per candidate) assessment: English offered: In the semester in which the course is offered and in the subsequent semester bonus						

10-M=VM-	Selected Topics in Mathematical Physics											
PHin-152-mo1	ECTS	10	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			V (4) + Ü (2) Module taught in: English							
	Method	d of ass	essment	b) ora c) ora Lange Asses	a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester creditable for bonus							
10-M=VPD-	Partial	Differe	ntial Equa	tions	of Mathematical Ph	ysics	'					
Pin-152-m01	ECTS	10	Duration	า	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S			V (4) + Ü (2) Module taught in: English							
	Method	a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester creditable for bonus										
10-M=V-	Pseudo Riemannian and Riemannian Geometry											
PRGin-152-mo1	ECTS	10	Duration	า	1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses				+ Ü (2) ıle taught in: Englis	h	·					
	Method	d of ass	essment	b) ora c) ora Langu Asses	al examination of or al examination in gro uage of assessment	approx. 90 to 120 minutes, usually chosen) or ne candidate each (approx. 20 minutes) or oups (groups of 2, 15 minutes per candidate) a: English he semester in which the course is offered and in	the subsequent so	emester				
10-I=DB-161-m01	Databa	ses					,					
	ECTS	5	Duration		1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2)	+ Ü (2)		,					
			essment	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). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus								
	Additio	nal Info	rmation	Focus	ses available for stu	dents of the Master's programme Informatik (Con	nputer Science, 12	o ECTS credits): SE, IS, HCI, GE.				

10-I=PA-161-m01	Analys	is and [esign of	Progra	ms							
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2) ·	$V(2) + \ddot{U}(2)$							
	Method	d of ass	essment	If ann of one date). Langu	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). Language of assessment: German and/or English creditable for bonus							
	Additional Information				es available for stu ES,GE	dents of the Master's programme Informatik (Comp	uter Science, 12	o ECTS credits):				
10-I-RAK-152-m01		ter Arch	nitecture									
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course				$V(2) + \ddot{U}(2)$							
	Referred to in LPO I			If ann of one date). Langu	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). Language of assessment: German and/or English creditable for bonus							
				§ 22 II Nr. 3 b) § 69 I Nr. 1 c): Rechnerarchitektur								
10-I-APR-172-m01	Advanc	ed Prog	gramming									
	ECTS	5	Duratio		1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course			$V(2) + \ddot{U}(2)$								
	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). Language of assessment: German and/or English creditable for bonus								
	Referred to in LPO I			§ 22 l	I Nr. 3 b)							

10-I-BS-191-m01	Operating Systems											
	ECTS 5 Duration		n 1 semester		Method of grading numerical grade		Modul level	undergraduate				
	Courses			V (2) + Ü (2) Module taught in: English								
	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). Language of assessment: German and/or English creditable for bonus								
10-l=Kl1-161-m01	Artificia	l Intelli	gence 1									
	ECTS 5 Duration		Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (2) + Ü (2)								
	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). Language of assessment: German and/or English creditable for bonus								
	Additional Information			Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IS,HCI								
08-FU-SAM-161-	Sensor and Actor Materials - Functional Ceramics and Magnetic Particles											
mo1	ECTS 5 Duratio		Duration	ì	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V(2) + P(2)								
				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								
08-FU-EEW-152- mo1	Electroc	hemica	l Energy	Storage and Conversion								
	ECTS	5	Duration	ì	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			V (2) + P (1) + E (1)								
	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								

08-FU-MW-161-	Structure and Properties of Modern Materials: Experiments vs. Simulations											
mo1	ECTS 5 Duration		n 1 semester		Method of grading numerical grade		Modul level	graduate				
	Courses		V (2)	V (2) + S (1)								
	Method	d of ass	essment	a) talk (approx. 30 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 Assessment offered: Once a year, winter semester								
11-EXNP6-Int-201-	Nonphysical Minor Subject											
mo1	ECTS	6	Duratio	n	1 semester	Method of grading numeric	al grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Method	d of ass	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: English								
	other p	rerequi	sites	Approval from examination committee required.								
Master Project Mod	dules (60 ECTS credits)											
11-FS-P-Int-201-	Profess	sional S	pecializa	tion Pl	tion Physics International							
mo1	ECTS	15	Duratio	n	1 semester	Method of grading (not) su	ccessfully completed	Modul level	graduate			
	Course	S		S (4) Module taught in: English								
	Method	d of ass	essment	talk with discussion (30 to 45 minutes) Language of assessment: English								
11-MP-P-Int-201-	Scienti	fic Met	hods and	Projec	Project Management Physics International							
mo1	ECTS 15 Duration			n	1 semester	Method of grading (not) su	ccessfully completed	Modul level	graduate			
	Course	S		R (4) Module taught in: English								
	Method	d of ass	essment	talk with discussion (30 to 45 minutes) Language of assessment: English								

ſ	11-MA-P-Int-201-	Master Thesis Physics International										
	mo1	ECTS 30 Duration				1 semester	Method of grading	numerical grade	Modul level	graduate		
		Courses										
		Method of assessment										
					Language of assessment: English							
		Additio	nal Info	rmation	Time t	o complete: 6 montl	hs					