

Annex SFB

Studienfachbeschreibung (subject description, SFB) for the subject Physics as Unterrichtsfach with the degree "Erste Staatsprüfung für das Lehramt an Grundschulen"

Responsible: Faculty of Physics and Astronomy

Examination regulations version: 2018

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

Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed

Regulations: **(L)ASPO** = general academic and examination regulations (for teaching-degree programmes), **FSB** = subject-specific provisions, **SFB**

= list of modules

Other: **A** = thesis, **LV** = course(s), **PL** = assessment(s), **TN** = participants, **VL** = prerequisite(s)

Conventions for the 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:

LASP02015

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

11-Jul-2018 (2018-46)

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	ECTS Durat		(in semesters)	Method of grading		Module level				
	Courses		To be spe	be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y							
	Method of as	ssessme	ent								
	Only after su completion of		l if applica	f applicable							
	Other prereq	uisites	if applica	if applicable							
	Participants on of places		ocati- if applica	if applicable							
	Additional in	formati	on if applica	if applicable							
	Referred to in	n LPO I	if applica	if applicable (examination regulations for teaching-degree programmes)							

Scientific Disciplin	ne (54 EC	TS cred	lits)										
Compulsory Cours	Compulsory Courses (54 ECTS credits)												
Classical Physics (Classical Physics (23 ECTS credits)												
11-E-M-152-mo1 Classical Physics 1 (Mechanics)													
	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade		Modul level	undergraduate			
	Courses				V (4) + Ü (2) Module taught in: Ü: German or English								
	Method	d of ass	sessment	written examination (approx. 120 minutes) Language of assessment: German and/or English									
	other prerequisites			Admission prerequisite to assessment: completion of exercises (approx. 13 exercise sheets per semester). Students who successfully completed approx. 50% of exercises will qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the semester.									
	Additional Information			Registration: If a student registers for the exercises and obtains the qualification for admission to assessment, this will be considered a declaration of will to seek admission to assessment pursuant to Section 20 Subsection 3 Sentence 4 ASPO (general academic and examination regulations). If the module coordinators subsequently find that the student has obtained the qualification for admission to assessment, they will put the student's registration for assessment into effect. Only those students that meet the respective prerequisites can successfully register for an assessment. Students who did not register for an assessment or whose registration for an assessment was not put into effect will not be admitted to the respective assessment. If a student takes an assessment to which he/she has not been admitted, the grade achieved in this assessment will not be considered.									
	Referred to in LPO I			§ 53 Nr. 1 a) § 77 Nr. 1 a)									

11-E-E-152-m01	Classical Physics 2 (Hea	at and Electromagnetisr	n)	"						
	ECTS 8 Duratio	n 1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Courses	V (4) + Ü (2) Module taught in: Ü: German or English								
	Method of assessment	written examination (approx. 120 minutes) Language of assessment: German and/or English								
	other prerequisites	successfully completed	Admission prerequisite to assessment: completion of exercises (approx. 13 exercise sheets per semester). Students who successfully completed approx. 50% of exercises will qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the semester.							
	Additional Information	considered a declaration neral academic and exthe qualification for adstudents that meet the for an assessment or w	Registration: If a student registers for the exercises and obtains the qualification for admission to assessment, this will be considered a declaration of will to seek admission to assessment pursuant to Section 20 Subsection 3 Sentence 4 ASPO (general academic and examination regulations). If the module coordinators subsequently find that the student has obtained the qualification for admission to assessment, they will put the student's registration for assessment into effect. Only those students that meet the respective prerequisites can successfully register for an assessment. Students who did not register for an assessment or whose registration for an assessment was not put into effect will not be admitted to the respective assessment. If a student takes an assessment to which he/she has not been admitted, the grade achieved in this assessment will not be considered							
	Referred to in LPO I	§ 53 Nr. 1 a) § 77 Nr. 1 a)								
11-L-OW-172-m01	Optics and Waves									
	ECTS 7 Duration		Method of grading numerical grade	Modul level	undergraduate					
	Courses	V (4) + Ü (2) Module taught in: Ü: German or English								
	Method of assessment	written examination (approx. 120 minutes) Registration: If a student registers for the seminar and obtains the qualification for admission to assessment, this will be considered a declaration of will to seek admission to assessment pursuant to Section 20 Subsection 3 Sentence 4 ASPO (general academic and examination regulations). If the module coordinators subsequently find that the student has obtained the qualification for admission to assessment, they will put the student's registration for assessment into effect. Only those students that meet the respective prerequisites can successfully register for an assessment. Students who did not register for an assessment or whose registration for an assessment was not put into effect will not be admitted to the respective assessment. If a student takes an assessment to which he/she has not been admitted, the grade achieved in this assessment will not be considered. Language of assessment: German and/or English								
	other prerequisites	Admission prerequisite to assessment: completion of exercises (approx. 13 exercise sheets per semester). Students who successfully completed approx. 50% of exercises will qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the semester.								
	Referred to in LPO I	§ 53 Nr. 1 a) § 77 Nr. 1 a)								

Structure of materi	al (11 EC	S cred	its)										
11-L-M1-NV-172-	Modern	Physic	CS 1										
mo1	ECTS	6	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses	5			+ Ü (2)								
					le taught in: Germai								
	Method	of ass	essment		written examination (approx. 120 minutes) Language of assessment: German and/or English								
	Referred	d +a in 1	DO I		§ 53 l Nr. 1 b)								
11-L-M2-NV-172-				9 53 1	53 I Nr. 1 D)								
mo1	Modern ECTS		Duration		2 semester	Method of grading	numarical grado	Modul level	undorgraduato				
		5	Duration			Method of grading	numerical grade	Modul level	undergraduate				
	Courses	•		V (4) - Modu	le taught in: Ü: Gerr	nan or English			_				
	Method	of ass	essment	b) ora	written examination (approx. 90 to 120 minutes) or oral examination of one candidate each (approx. 20 minutes)								
	2.6				nguage of assessment: German and/or English								
	Referred			035									
Computational Met	hods (6 ECTS credits)												
11-M-MR-152-m01													
	ECTS	6	Duration		2 semester		(not) successfully completed	Modul level	undergraduate				
	Courses	5			+ Ü (1) + V (2) + Ü (1) le taught in: Germa								
	Method	of ass	essment	a) exercises (successful completion of approx. 50% of approx. 13 exercise sheets) or b) talk (approx. 15 minutes)									
	Referred	d to in l	-PO I	§ 53 Nr. 1 a) § 77 Nr. 1 a)									
Laboratory Course	l (9 ECTS	credit	s)										
11-P-LA-152-m01	Laborat	ory Co	urse Phys	ics A(N	Mechanics, Heat, Ele	ectromagnetism)							
	ECTS	2	Duration	1	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses	5	•	P (2)									
	Method	of ass	essment	practical assignment with talk (approx. 30 minutes) Preparing, performing and evaluating (record of readings or lab report) the experiments will be considered successfully completed if a Testat (exam) is passed. Exactly one experiment that was not successfully completed can be repeated once. After completion of all experiments, talk (with discussion; approx. 30 minutes) to test the candidate's understanding of the physics-related contents of the module. Talks that were not successfully completed can be repeated once. Both components of the assessment have to be successfully completed.									
	Referred to in LPO I				§ 53 Nr. 1 c) § 77 Nr. 1 d)								

11-P-FR1-152-m01	Data an	d Error	Analysis								
	ECTS	2	Duration	1	1 semester	Method of grading (not) successfully completed Modul level undergraduate					
	Courses	5		V (1) -							
	AA (1 1				lle taught in: Ü: Ger						
	Method	or ass	essment	Langu	n examination (app lage of assessment	prox. 120 minutes) nt: German and/or English					
	other pr	rerequi	sites	succe	Admission prerequisite to assessment: completion of exercises (approx. 13 exercise sheets per semester). Students who successfully completed approx. 50% of exercises will qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the semester.						
	Addition	nal Info	ormation	Registration: If a student registers for the exercises and obtains the qualification for admission to assessment, this will be considered a declaration of will to seek admission to assessment pursuant to Section 20 Subsection 3 Sentence 4 ASPO (general academic and examination regulations). If the module coordinators subsequently find that the student has obtained the qualification for admission to assessment, they will put the student's registration for assessment into effect. Only those students that meet the respective prerequisites can successfully register for an assessment. Students who did not register for an assessment or whose registration for an assessment was not put into effect will not be admitted to the respective assessment. If a student takes an assessment to which he/she has not been admitted, the grade achieved in this assessment will not be considered.							
	Referred	d to in l	_PO I		§ 53 Nr. 1 c) § 77 Nr. 1 d)						
11-P-LB-152-m01	Laborat	ory Co	urse Phys	ics B (Electricity, Circuits	s, Atomic and Nuclear Physics)					
	ECTS	5	Duration	1	2 semester	Method of grading (not) successfully completed Modul level undergraduate					
	Courses	;		P (2) -	+ P (2)						
	Method	of ass	essment	practical assignment with talk (approx. 30 minutes) Preparing, performing and evaluating (record of readings or lab report) the experiments will be considered successfully completed if a Testat (exam) is passed. Exactly one experiment that was not successfully completed can be repeated once. After completion of all experiments, talk (with discussion; approx. 30 minutes) to test the candidate's understanding of the physics-related contents of the module. Talks that were not successfully completed can be repeated once. Both components of the assessment have to be successfully completed.							
	other pr	erequi	sites	Students are highly recommended to complete modules 11-P-LA and 11-P-FR1 prior to completing module 11-P-LB.							
	Referred	d to in I	-PO I	§ 53 Nr. 1 b) (3 ECTS credits) and c) (2 ECTS credits) § 53 Nr. 1 c) § 77 Nr. 1 d)							
Laboratory Course	II (5 ECTS	credit	:s)								
11-P-DP1-172-m01	Demons	stration	Laborato	ry Cou	ırse 1						
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade Modul level undergraduate					
	Courses	5		P (4)							
	Method of assessment			a) oral examination of one candidate each (approx. 10 minutes) or b) oral examination in groups (groups of 2, approx. 10 minutes per candidate) Language of assessment: German and/or English							
	Referred	d to in l	PO I	§ 53 Nr. 1 c), § 77 Nr. 1 d)							

Teaching (12 ECTS credits)												
Compulsory Cours	es (12 EC	TS cred	lits)									
11-L-PD-172-m01	Physics	Teach	ing Conce	epts	pts							
	ECTS	5	Duratio	n	2 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	S		V (2)	$V(2) + V(2) + \ddot{U}(1)$							
	Method	d of ass	essment		a) written examination (approx. 60 minutes) or							
						ne candidate each (approx. 15 minutes) or roups (groups of 2, approx. 15 minutes per candid	lata) or					
					m paper (approx. 8		iate) oi					
					Language of assessment: German and/or English							
	Referre	d to in I	_PO I	§ 36 l								
				§ 38 I § 53 I								
				§ 77 I								
11-L-PDS-NV-152-	Physics	Teach	ing Conce	epts Se	eminar							
mo1	ECTS 2 Duratio		Duratio	n	1 semester	Method of grading (not) successfully complet	ted Modul level	undergraduate				
		Courses			_							
	Method	d of ass	essment	a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 10 minutes) or								
					c) oral examination in groups (groups of 2, approx. 10 minutes) or							
					d) term paper (approx. 8 pages)							
					Language of assessment: German and/or English							
	Referre			§ 53 l								
11-L-L3S-152-m01					se (Physics)	The state of the state of		T				
	ECTS	5	Duratio		1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course			S (5)								
	Method	of ass	essment		itten examination (a							
				b) oral examination of one candidate each (approx. 10 minutes) or c) oral examination in groups (groups of 2, approx. 10 minutes per candidate) or								
	Referred to in LPO I			d) term paper (approx. 8 pages) or								
				e) portfolio (10 to 15 hours total) Language of assessment: German and/or English								
				§ 53 Nr. 2								
	Kelene	u to III I		3 22 1	111. 4							

Thesis (4 ECTS credits)

Students studying for a teaching degree Grundschule must complete a practical training in didactics and teaching methodology (studienbegleitendes fachdidaktisches Praktikum) which refers to one of the subjects they selected as vertieft studiertes Fach (subject studied with a focus on the scientific discipline) pursuant to Section 34 Subsection 1 No. 4 LPO I (examination regulations for teaching-degree programmes). The obligatory accompanying tutorial is offered by the respective subject. The ECTS

credits obtained are counted in the subject Erziehungswissenschaften pursuant to Section 10 Subsection 3 LASPO (general academic and examination regulations for teaching-degree programms).

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11-L-SBPGS-152-	Physics	Physics: Practical Training and Theory of Classroom										
mo1	ECTS	4	Duration	า	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Courses	i		P (o) -	+ S (2)							
	Method of assessment term paper (15 to 20 pages) Contents and duration of placement as specified in Section 34 Subsection 1 Sentence 1 No. 4 LPO I (exfort teaching-degree programmes); participation in mandatory teaching practice, completion of all set to placement school. Language of assessment: German and/or English											
	Referred	to in L	PO I	§ 34 l	1 Nr. 4							

Extra Skills

Teaching degree students must take modules worth a total of 15 ECTS credits in the area Freier Bereich (general as well as subject-specific electives) (Section 9 LASPO (general academic and examination regulations for teaching-degree programmes)). To achieve the required number of ECTS credits, students may take any modules from the areas below.

Freier Bereich -- interdisciplinary: The interdisciplinary additional offer for a teaching degree can be found in the respective Annex "Ergänzende Bestimmungen für den "Freien Bereich" im Rahmen des Studiums für ein Lehramt".

Physics

(Freier Bereich (general as well as subject-specific electives) -- subject specific)

11-L-EL1-152-mo1 Teaching Seminar Fundamental Principles												
11-L-EL1-152-m01												
	ECTS 3	Duration	n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses		S (2)	S (2)								
	Method of asse		b) pre c) writ d) ora e) ora	a) term paper (approx. 8 pages) or b) presentation (approx. 45 minutes) or c) written examination (approx. 45 minutes) or d) oral examination of one candidate each (approx. 15 minutes) or e) oral examination in groups (groups of 2, approx. 15 minutes per candidate) Language of assessment: German and/or English								
	Referred to in L		§ 22 l	l Nr. 1 h) l Nr. 2 f) l Nr. 3 f)								

11-L-EL2-152-m01	Selecte	ed Topic	s in Phys	ics Dic	lactics						
	ECTS	3	Duration	ı	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Course	S		S (2)							
	Method	d of asse	essment	b) pre c) wri d) ora e) ora	a) term paper (approx. 8 pages) or b) presentation (approx. 45 minutes) or c) written examination (approx. 45 minutes) or d) oral examination of one candidate each (approx. 15 minutes) or e) oral examination in groups (groups of 2, approx. 15 minutes per candidate) c. anguage of assessment: German and/or English						
	Referre	d to in L	PO I	§ 22 l	Nr. 1 h) Nr. 2 f) Nr. 3 f)						
11-P-VKM-152-m01	Prepara	atory Co	urse Mat	hemat	ics						
	ECTS	2	Duration	ı	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Course	S		T (2)							
	Method	d of asse	essment	a) exercises (successful completion of approx. 50% of approx. 6 exercise sheets) or b) talk (approx. 15 minutes) Assessment offered: Once a year, winter semester							
	Referred to in LPO I			§ 22 l	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)						
11-L-L3B-152-m01	Student Lab Supervision (Physics)										
	ECTS	2	Duration	1	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Course	S		P (2)					_		
	Method of assessment			a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 10 minutes) or c) oral examination in groups (groups of 2, approx. 10 minutes per candidate) or d) term paper (approx. 8 pages)							
	Additio	nal Info	rmation	This r	nodule is designed	d for students studying	at least one subject in the nat	ural sciences.			
	Referred to in LPO I			§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)							

11-MIND-Ph1-152-	Low Co	Low Cost - High Impact. Low-budget Experiments for Science Courses (Physics)												
mo1	ECTS	2	Duratio	1	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate					
	Course	:S		S (2)	•	•		•						
	Method	d of ass	essment		a) written examination (approx. 45 minutes) or									
					b) oral examination of one candidate each (approx. 10 minutes) or									
					c) oral examination in groups (groups of 2, approx. 20 minutes) or d) term paper (approx. 8 pages)									
	Additional Information				This module is designed for students studying at least one subject in the natural sciences.									
					Nr. 1 h)	Tor students studying	at least one subject in the hat	urat sciences.						
	Kelene	Referred to in LPO I			I Nr. 2 f)									
					§ 22 II Nr. 3 f)									
11-MIND-Ph2-152-	Teachi	ng Scie	nce with H	lands-	on-Exhibits (Physic	:s)								
mo1	ECTS	2	Duratio		1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate					
	Courses			S (2)										
	Method	d of ass	essment			pprox. 45 minutes) o								
				b) oral examination of one candidate each (approx. 10 minutes) or c) oral examination in groups (groups of 2, approx. 20 minutes) or										
					m paper (approx. 8		order. 20 minutes) of							
	Additio	nal Info	ormation			· -	at least one subject in the nat	ural sciences.						
	Referred to in LPO I				I Nr. 1 h)	, ,	•							
					§ 22 Nr. 2 f)									
				§ 22 l	§ 22 II Nr. 3 f)									
11-AP-152-m01	Astrophysics													
	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate					
	Course	·S			V (2) + R (2) Module taught in: German or English									
	^ ^ - + l													
	Method	a or 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) pro	oject report (approx	. 8 to 10 pages) or	,	,						
					e) presentation/talk (approx. 30 minutes)									
				If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed,										
					the lecturer must inform students about this by four weeks prior to the original examination date at the latest.									
					Language of assessment: German and/or English									
	Referre	d to in	LPO I		l Nr. 1 h)									
					l Nr. 2 f)									
				§ 22 l	l Nr. 3 f)									

11-ENT-152-m01	Principles of E	nergy Tec	hnolo	gies								
	ECTS 6	Duratio	ก	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			V (3) + R (1) Module taught in: German or English a) written examination (approx. 90 to 120 minutes) or								
	11 1 6											
	Method of asso	essment	b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: Once a year, winter semester									
	Referred to in I	LPO I	§ 22 l	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)								
11-L-APD-152-m01	Current Topics of Teaching Concepts in Physics											
	ECTS 3	Duratio	ก	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses		S (2) Module taught in: German or English									
	Method of ass	essment	b) ora c) ora d) ter	a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 10 minutes) or c) oral examination in groups (groups of 2, approx. 10 minutes per candidate) or d) term paper (approx. 8 pages) or e) talk (30 to 45 minutes) with discussion								
	Referred to in LPO I		§ 22 l § 22 l	II Nr. 1 h) II Nr. 2 f) II Nr. 3 f)								
11-L-WPD-152-m01	Scientific World	k in Teach	ing Co	ncepts								
	ECTS 3	Duration	n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses		S (2) Module taught in: German or English									
	Method of ass	essment	talk (talk (30 to 45 minutes)								
	Referred to in I	LPO I	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)									

11-LX6-152-m01	Curren	t Topics	in Physic	:s							
	ECTS	6	Duration	1	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	S		V (3) ·	+ R (1)						
	Method	d of ass		b) ora c) ora d) pro e) pre If a wi 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.						
	-1			Langu	uage of assessme	ent: German and/or English					
	other prerequisites					ation committee required.					
	Referred to in LPO I			§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)							
11-LCS6-152-m01	Selected Topics of Physics										
	ECTS	4	Duration	<u> </u>	1 semester Method of grading numerical grade Modul level undergraduate						
	Course	S		V (2) ·	+ R (1)						
	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 th form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is change the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English							
	other p	rerequi	sites	Approval from examination committee required.							
	Referre	ed to in I	-	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)							

11-L-NEGS-152-	Experiments for science courses in primary schools											
mo1	ECTS	TS 2 Duratio		n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Course	!S		S (2)								
	Metho	d of asso	essment	a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 10 minutes) or c) oral examination in groups (groups of 2, approx. 10 minutes per candidate) or d) term paper (approx. 8 pages)								
		pants ar of place		20 places. Should the number of applications exceed the number of available places, places will be allocated as follows: Option 1: (1) Places will be allocated by lot. (2) A waiting list will be maintained and places re-allocated as they become available. Option 2: (1) Places will be allocated according to the number of subject semesters. (2) A waiting list will be maintained and places re-allocated as they become available.								
	Referre	d to in L	PO I	§ 22 II Nr. 1 h)								

Thesis (10 ECTS credits)

Preparation of a written Hausarbeit (thesis) in accordance with the provisions of Section 29 LPO I (examination regulations for teaching-degree programmes) is a prerequisite for teaching degree students to be admitted to the Erste Staatsprüfung (First State Examination). In accordance with the provisions of Section 29 LPO I, students studying for a teaching degree Grundschule may write this thesis in the subject Didaktik der Grundschule (Didactics of Grundschule), in the subject they selected as Unterrichtsfach (subject studied with a focus on the scientific discipline) or in the subject Erziehungswissenschaften (Educational Science). Pursuant to Section 29 Subsection 1 Sentence 2 LPO I, students may also choose to write an interdisciplinary thesis.

11-L-HA-GS-UF-152-	Thesis	in Physi	Physics Primary General School									
mo1	ECTS	10	Duration			Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		No courses assigned to module								
	Method	d of asse		Hausarbeit (thesis) pursuant to Section 29 LPO I (examination regulations for teaching-degree programmes) (approx. 40 pages)								
	Language of assessment: German; exceptions pursuant to Section 29 Subsection 4 LPO I (ching-degree programmes)								amination regulations for tea-			
	Referre	d to in L	PO I	§ 29								