

Module Catalogue

for the Subject

Didactics in Physics (Primary School)

as Didaktikfach

with the degree "Erste Staatsprüfung für das Lehramt an Grundschulen"

> Examination regulations version: 2018 Responsible: Faculty of Physics and Astronomy

JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record L1|813|-|-|H|2018



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The subject is divided into

section / sub-section	ECTS credits	starting page
Compulsory Electives	10	6
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Learning Outcomes

UNIVERSITÄT

WÜRZBURG

German contents and learning outcome available but not translated yet.

Wissenschaftliche Befähigung

- Die Absolventinnen und Absolventen verstehen die Grundlagen der Physik und können diese anwenden.
- Die Absolventinnen und Absolventen können unter Anleitung Experimente durchführen, analysieren und die erhaltenen Ergebnisse darstellen und bewerten.
- Die Absolventinnen und Absolventen besitzen ein grundlegendes Abstraktionsvermögen und die Fähigkeit, komplexe Zusammenhänge zu strukturieren.

Befähigung zur Aufnahme einer Erwerbstätigkeit

- Die Absolventinnen und Absolventen können fachliche Inhalte und ihre Erkenntnisse didaktisch aufbereiten und adressatengerecht vermitteln.
- Die Absolventinnen und Absolventen kennen Konzepte, Prinzipien, Methoden und evidenzbasierte Erkenntnisse aus dem Bereich der Physikdidaktik und können diese zur ziel- und adressatengerechten Ausgestaltung von Lehr/Lern-Settings anwenden.
- Die Absolventinnen und Absolventen können den Einsatz von Experimenten und Medien im Physikunterricht und die Betreuung von Schülerinnen und Schülern an ausgewählten Lehr-Lernsituationen wissenschaftlich fundiert reflektieren.

Persönlichkeitsentwicklung

- Die Absolventinnen und Absolventen kennen die Regeln guter wissenschaftlicher Praxis und beachten sie.
- Die Absolventinnen und Absolventen können ihr Wissen und ihre Erkenntnisse in einer Lehrsituation angemessen und selbstbewusst darstellen.
- Die Absolventinnen und Absolventen besitzen die Fähigkeit didaktisches Wirken in einer Lehr-/ Lernsituation angemessen zu reflektieren und passende Schlussfolgerungen zu ziehen.

Befähigung zum gesellschaftlichen Engagement

- Die Absolventinnen und Absolventen haben ihr Wissen bezüglich wirtschaftlicher, gesellschaftlicher, naturwissenschaftlicher, kultureller etc. Fragestellungen erweitert (z.B im Hinblick auf Bildung für nachhaltige Entwicklung) und können begründet Position beziehen.
- Die Absolventinnen und Absolventen entwickeln die Bereitschaft und Fähigkeit, ihre Kompetenzen in partizipative Prozesse einzubringen und aktiv an Entscheidungen mitzuwirken.



Abbreviations used

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

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

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

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

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

Conventions

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

Notes

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 the 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:

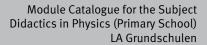
LASPO2015

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.





Compulsory Electives

(10 ECTS credits)

Successful completion of modules worth no less than 10 ECTS credits in each subject selected as Didaktikfach (subject studied with a focus on teaching methodology) is a prerequisite for admission to the Erste Staatsprüfung (First State Examination) in the subject Didaktik der Grundschule (Didactics for Grundschule). In addition, modules worth another 5 ECTS credits must be successfully completed in one of the subjects selected as Didaktikfach.

Module title Abbreviation				Abbreviation		
Physics	s Teach	ing Concepts			11-L-PD-172-m01	
Module	e coord	inator		Module offered by		
holder	of the (Chair of Physics and its	Didactics	Faculty of Physics a	nd Astronomy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
2 seme	ster	undergraduate				
Conten	ts					
of the d subject sics cor typical these; d	legree ; comp ntent; i learnin dealing	programme. Justificatio betence models and edu methods and media in p og difficulties in the subj	n/legitimation of phys icational standards; el hysics lessons and th ject areas of physics re ns; teaching approach	ics teaching; educat ementarisation and eir use to promote le elevant to teaching a	subject-relevant scientific conten ional objectives of physics as a didactic reconstruction of phy- earning; student perceptions and nd teaching concepts based on and cognitive/working methods of	
Intende	ed lear	ning outcomes				
They cle familia	early d r with s	ifferentiate didactic asp	ects of physics lesson conceptions and their	s from scientific and significance for the	oup-orientated physics lessons. educational aspects. They are students' learning process. They	
Course	S (type, r	number of weekly contact hours	, language — if other than Gei	rman)		
V (2) + V	V (2) +	Ü (1)				
		sessment (type, scope, langu le for bonus)	age — if other than German,	examination offered — if no	t every semester, information on whether	
b) oral (c) oral (d) term	examir examin paper	mination (approx. 60 mi nation of one candidate nation in groups (groups (approx. 8 pages) ssessment: German and	each (approx. 15 minu of 2, approx. 15 minut			
Allocat	ion of j	olaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachir	ıg cycl	e				
Referre	d to in	LPO I (examination regulatio	ns for teaching-degree progra	mmes)		
§ 36 N § 38 N § 53 N § 77 N	lr. 1 r. 2					
Module	e appea	ars in				
First sta	ate exa	mination for the teachir mination for the teachir mination for the teachir	ng degree Grundschule	Didactics in Physics	s (Primary School) (2018)	
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First state examination for the teaching degree Mittelschule Physics (2020)

Module coo nolder of the ECTS Met		eneral School		11-L-SP1-152-m01
CTS Met				1
ECTS Met			Module offered by	
5 num	e Chair of Physics and its D	idactics	Faculty of Physics a	nd Astronomy
5 num	hod of grading	Only after succ. com	pl. of module(s)	
·	nerical grade			
Julation	Module level	Other prerequisites		
semester	undergraduate			
Contents		<u>,</u>		
Physical cor	itents (mechanics, thermoo Grund- and Hauptschule.	dynamics) relevant to	classes in Natural S	Sciences or technical-natural
	arning outcomes			
classes in G demonstrati	rund- and Hauptschule; kn on and pupils experiments	owledge of typical ap	proaches to the imp	scientific or technical-scientific olementation and evaluation of
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	ssessment (type, scope, langua able for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether
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Additional I	niormation			
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Module	e title				Abbreviation
Physics	5 2 for I	Primary and Secondary G	ieneral School		11-L-SP2-152-m01
Module	e coord	inator		Module offered by	
holder	of the (Chair of Physics and its D	idactics	Faculty of Physics a	and Astronomy
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5		rical grade			
Duratio		Module level	Other prerequisites		
1 seme:		undergraduate			
Conten	ts		<u>.</u>		
Physica	al conte	ents (science of electricity und- and Hauptschule.	/, electronics) relevar	nt to classes in Natu	ral Sciences or technical-natural
Intende	ed leari	ning outcomes			
classes demon	in Gru stratior	nd- and Hauptschule; kn n and pupils experiments	owledge of typical ap	proaches to the imp	scientific or technical-scientific olementation and evaluation of
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Module	e title				Abbreviation
Physics	s 3 for l	Primary and Secondary G	ieneral School		11-L-SP3-152-m01
Module	e coord	inator		Module offered by	
holder	of the (Chair of Physics and its D	idactics	Faculty of Physics a	and Astronomy
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5		rical grade			
Duratio		Module level	Other prerequisites		
1 seme		undergraduate			
Conten					
Physica	al conte	ents (optics, acoustics, A sciences in Grund- and Ha		ysics) relevant to cla	asses in Natural Sciences or tech
Intende	ed leari	ning outcomes			
classes demon	s in Gru stratior	nd- and Hauptschule; kn n and pupils experiments	owledge of typical ap	proaches to the imp	scientific or technical-scientific olementation and evaluation of
		umber of weekly contact hours, l	anguage — if other than Ger	rman)	
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		mination for the teaching			-



Extra Skills (ECTS credits)

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".



Extra Skills Teaching Physics at the German Grundschule (ECTS credits)

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

Module title Abbreviation						
Teachi	ng Sem	inar Fundamental Princ	iples		11-L-EL1-152-m01	
Module	e coord	inator		Module offered by		
holder	of the (Chair of Physics and its	Didactics	Faculty of Physics a	nd Astronomy	
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
3	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
ceptior sed on	ns and t specifi	nterdisciplinary aspects typical learning difficult c contents of physics ec xperiments and suitable	ies, elementarisation a ducation, verbalisatior	and didactic reconst	ruction of physical c	ontents ba-
Intende	ed lear	ning outcomes				
studen	t preco	alitative knowledge of s nceptions and special r versity and school rega	nedia on relevant topi	cs; awareness of the		
Course	S (type, r	number of weekly contact hours	, language — if other than Gei	man)		
S (2)						
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) 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						on on whether
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Module title Abbreviation								
Select	Selected Topics in Physics Didactics 11-L-EL2-152-mo1							
Modul	e coord	inator		Module offered by	Module offered by			
chairpe	erson o	f examination committe	26	Faculty of Physics a	nd Astronomy			
ECTS	1	od of grading	Only after succ. con	· · ·				
	1	successfully completed						
3 Duratio		Module level						
		-	Other prerequisites					
1 seme		undergraduate						
Conter								
Curren	t topics	in physics education.						
Intend	ed lear	ning outcomes						
		have knowledge of a cu e according to subject-s				y the acqui-		
Course	S (type, r	number of weekly contact hours	s, language — if other than Ge	rman)				
S (2)								
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		le for bonus)	auge in other than cerman,		cevery semester, mornal			
a) term	paper	(approx. 8 pages) or						
		n (approx. 45 minutes)						
		mination (approx. 45 m						
		nation of one candidate						
		ation in groups (groups ssessment: German an		les per candidate)				
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Additio	onal inf	ormation						
Worklo	ad							
90 h								
Teachi	ng cycl	e						
Referre	ed to in	LPO I (examination regulation	ons for teaching-degree progra	ammes)				
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First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020)

First state examination for the teaching degree Mittelschule Physics (2020)

	e title				Abbreviation	
Preparatory Course Mathematics 11-P-VKM-152-m01						
Module	e coord	linator		Module offered by		
		ectors of the Institute of	Applied Physics and	Faculty of Physics a	nd Astronomy	
		of Theoretical Physics ar			ind Astronomy	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites	;		
1 seme	ster	undergraduate				
Conten	Its	<u> </u>	1			
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Intende	ed lear	ning outcomes				
		know the principles of r studying Theoretical and			ethods which are rea	quired for
		number of weekly contact hours				
T (2)						
a) exer b) talk	cises (: (appro	ble for bonus) successful completion o x. 15 minutes) offered: Once a year, wir		ox. 6 exercise sheets) or	
Allocat	ion of	places				
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 Worklo 60 h Teachin § 22 II I § 22 II I § 22 II I § 22 II I Bachel Bachel Bachel Bachel First sta	ng cycl ed to in Nr. 1 h) Nr. 2 f) Nr. 3 f) e appea or's de or's de or's de or's de ate exa	e LPO I (examination regulation ars in gree (1 major) Physics (gree (1 major) Nanostru gree (1 major) Mathema gree (1 major, 1 minor) I mination for the teachi	2015) cture Technology (201 atical Physics (2015) Physics (Minor, 2015) ng degree Grundschule	5) e Physics (2015)	(Primary School) (2	:015)
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First state examination for the teaching degree Gymnasium Physics (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Mittelschule Physics (2015) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015) Bachelor's degree (1 major) Mathematical Physics (2016)

First state examination for the teaching degree Grundschule Physics (2018)

First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018)

First state examination for the teaching degree Realschule Physics (2018)

First state examination for the teaching degree Gymnasium Physics (2018)

First state examination for the teaching degree Mittelschule Physics (2018)

First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018)

Module title Abbreviation							
Studen	t Lab S	upervision (Physics)			11-L-L3B-152-m01		
Module	e coord	inator		Module offered by			
holder	of the (Chair of Physics and its [idactics	Faculty of Physics a	nd Astronomy		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
2	(not) s	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
The module provides an introduction to successful supervision of pupils independently carrying out experiments in the teaching-learning-laboratory.							
Intende	ed lear	ning outcomes					
The students learn to classify different groups of pupils according to their subject-specific and experimental level of performance, to support the pupils according to their needs and age and to help them during independent experimenting (supervision competencies in open classroom situations). The students are able to methodically and critically evaluate their own actions. A lecturer gives individual feedback to the students to avoid negative behaviour patterns and to support the students' strengths. The students develop professional behaviour patterns by repeatedly working on the same topic with different groups of pupils (reflection competencies and self-control competencies).							
Course	S (type, r	number of weekly contact hours,	language — if other than Gei	rman)			
P (2)							
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether							
module is	creditab	le for bonus)					
b) oral c) oral e	examir examin	mination (approx. 45 min nation of one candidate e nation in groups (groups (approx. 8 pages)	each (approx. 10 minu				
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
This mo	odule is	s designed for students s	studying at least one	subject in the natura	l sciences.		
Worklo	ad						
60 h							
Teachir	ng cycl	e					
Referre	d to in	LPO I (examination regulation	is for teaching-degree progra	immes)			
§ 22 § 22 § 22	Nr. 2 f)						
Module	e appea	ars in					
First sta First sta First sta First sta First sta First sta	Module appears inFirst state examination for the teaching degree Grundschule Physics (2015)First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015)First state examination for the teaching degree Realschule Physics (2015)First state examination for the teaching degree Gymnasium Physics (2015)First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015)First state examination for the teaching degree Mittelschule Physics (2015)First state examination for the teaching degree Mittelschule Physics (2015)First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015)First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015)A Grundschulen Didactics in Physics (PrimaryJMU Würzburg • generated 19-Apr-2025 • exam. reg. data re-page 20 / 40					ol) (2015)	
School) (20				undschulen (Didaktikfach) Pł			

First state examination for the teaching degree Grundschule Physics (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018) First state examination for the teaching degree Realschule Physics (2018) First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020)

Module	Module title Abbreviation						
Low Cost - High Impact. Low-budget Experiments for Science Courses (Phy-			e Courses (Phy-	11-MIND-Ph1-152-m	01		
sics)				· · ·	_		
Module	coord	inator		Module offered by	Module offered by		
holder	of the C	hair of Physics and its I	Didactics	Faculty of Physics a	nd Astronomy		
ECTS	Metho	od of grading	Only after succ. com				
2		uccessfully completed					
Duratio	ľ	Module level	Other prerequisites				
1 semes		undergraduate	1				
Conten			<u> </u>				
Conception and realisation of experimental stations with ordinary and inexpensive consumables for classes of Grundschule and secondary level I.							
Intende	ed learr	ing outcomes					
		levelop simple scientific nall groups from differer					
		ant to the curriculum in				,	
Courses	S (type, n	umber of weekly contact hours,	language — if other than Ger	man)			
S (2)							
Method	l of ass	essment (type, scope, langu	age — if other than German, e	examination offered — if no	t every semester, informati	on on whether	
		le for bonus)			· ·		
		nination (approx. 45 min ation of one candidate e		tes) or			
		ation in groups (groups		-			
		(approx. 8 pages)	,	, -			
Allocati	ion of p	laces					
Additio	nal info	ormation					
This mo	odule is	designed for students	studying at least one s	subject in the natura	l sciences.		
Worklo				•			
60 h							
Teachir		2					
reaction	is cycli	-					
 Doforro	d to in						
		LPO I (examination regulation	is for teaching-degree progra	mmes)			
§ 22 N § 22 N							
§ 22 N							
Module		rs in					
		mination for the teachin	g degree Grundschule	Physics (2015)			
		mination for the teachin			s (Primary School) (2	015)	
First sta	ate exa	mination for the teachin	g degree Realschule P	hysics (2015)			
		mination for the teachin		-			
		mination for the teachin			nysics (Middle Schoo	ol) (2015)	
		mination for the teachin		• -	· · · · · · · · ·		
		mination for the teachin			6 (Middle School) (20	15)	
		mination for the teachin				0)	
		mination for the teachin mination for the teachin		•	s (Primary School) (2	018)	
		actics in Physics (Primary		enerated 19-Apr-2025 • exam	rog data ro	nage 22 / 12	
LA Grundsci School) (20		actics in Flysics (Fillidly		enerated 19-Apr-2025 • exam undschulen (Didaktikfach) Pł		page 22 / 40	

First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020)

First state examination for the teaching degree Mittelschule Physics (2020)

Module	e title				Abbreviation			
Teaching Science with Hands-on-Exhibits (Physics)					11-MIND-Ph2-152-m	01		
Module	a coord	inator		Module offered by				
		Chair of Physics and its I	Didactics	Faculty of Physics a	nd Astronomy			
ECTS Method of grading Only after succ. compl. of module(s)								
2 Duratio		successfully completed Module level	Other prerequisites					
				quisites				
1 seme		undergraduate						
Conten								
Designi	ing and	l creating hands-on exh	bits for STEM subjects	5.				
Intende	ed lear	ning outcomes						
tents in	n and o	evaluate the advantages ut of school. They plan a vork with pupils of seco	and implement an inte					
Course	S (type, r	umber of weekly contact hours,	language — if other than Ger	man)				
S (2)								
		sessment (type, scope, langu le for bonus)	age — if other than German, e	examination offered — if no	t every semester, informati	on on whether		
c) oral e	examin paper	ation of one candidate ation in groups (groups (approx. 8 pages) blaces						
Additio	nal inf	ormation						
		s designed for students	studving at least one s	subiect in the natura	l sciences.			
Worklo				,,				
60 h								
Teachir	ng cycl	۵						
reacin	is cyce							
	d 4 a 3 a							
		LPO I (examination regulatio	ns for teaching-degree progra	mmes)				
§ 22 § 22								
§ 22								
Module	_	urs in						
		mination for the teachin	g degree Grundschuld	Physics (2015)				
First sta First sta First sta	ate exa ate exa ate exa	mination for the teachin mination for the teachin mination for the teachin mination for the teachin	g degree Grundschule g degree Realschule P g degree Gymnasium	Didactics in Physics Physics (2015) Physics (2015)		-		
				Physics (2015)		, , , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
First sta First sta	ate exa	mination for the teachir mination for the teachir mination for the teachir	g degree Mittelschule	Didactics in Physics	s (Middle School) (20	_		
First sta First sta First sta First sta First sta	ate exa ate exa ate exa ate exa ate exa		g degree Mittelschule g degree Grundschule g degree Grundschule g degree Realschule P	Didactics in Physics Physics (2018) Didactics in Physics Physics (2018)		015)		

First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020)

Module	Module title Abbreviation						
Astrophysics 11-AP-152-m01							
Module coordinator N				Module offered by			
Managing Director of the Institute of Theoretical Physics Faculty of Physics and Astronomy and Astrophysics							
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
6	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 semes	ster	undergraduate					
Content	s						
telescor um, mo lactic nu	History of astronomy, coordinates and time measurement, the Solar System, exoplanets, astronomical scales, telescopes and detectors, stellar structure and atmospheres, stellar evolution and end stages, interstellar medi- um, molecular clouds, structure of the milky way, the local universe, the expanding universe, galaxies, active ga- lactic nuclei, large-scale structures, cosmology.						
		ning outcomes					
physica	lobse	are familiar with the mo rvations and evaluatior familiar with the physic	ns. They are able to use	these methods to p	lan and analyse owr	n observati-	
Courses	S (type, n	umber of weekly contact hours	s, language — if other than Ger	man)			
V (2) + R (2) Module taught in: German or English							
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)							
 a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English 							
Allocati	on of p	olaces					
Additio	nal info	ormation					
Workloa	ad						
180 h							
Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
§ 22 N	-						
§ 22 II Nr. 2 f) § 22 II Nr. 3 f)							
Module		irs in					
LA Grundsch School) (20:		actics in Physics (Primary		enerated 19-Apr-2025 • exam undschulen (Didaktikfach) Pł	-	page 26 / 40	

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Bachelor's degree (1 major) Physics (2015) Bachelor's degree (1 major) Mathematical Physics (2015) Bachelor's degree (1 major) Aerospace Computer Science (2015) Bachelor's degree (1 major, 1 minor) Physics (Minor, 2015) First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015) First state examination for the teaching degree Realschule Physics (2015) First state examination for the teaching degree Gymnasium Physics (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Mittelschule Physics (2015) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015) Bachelor's degree (1 major) Mathematical Physics (2016) Master's degree (1 major) Nanostructure Technology (2016) Bachelor's degree (1 major) Aerospace Computer Science (2017) First state examination for the teaching degree Grundschule Physics (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018) First state examination for the teaching degree Realschule Physics (2018) First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) Master's degree (1 major) Nanostructure Technology (2020) Bachelor's degree (1 major) Physics (2020) Bachelor's degree (1 major) Mathematical Physics (2020) Bachelor's degree (1 major, 1 minor) Physics (Minor, 2020) Bachelor's degree (1 major) Aerospace Computer Science (2020) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Physics (2020) Master's degree (1 major) Quantum Technology (2021) exchange program Physics (2023) Bachelor's degree (1 major) Mathematical Physics (2024)

Module	Module title Abbreviation						
Principles of Energy Technologies 11-ENT-152-mo1							
Module	e coord	inator		Module offered by			
Managing Director of the Institute of Ap			Applied Physics	Faculty of Physics a	and Astronomy		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)			
6	6 numerical grade						
Duratio	on	Module level	Other prerequisites	5			
1 seme	1 semester graduate						
Contents							
as rene ting ma studen verters Electric	Physical principles of energy conservation and energy conversion, energy transport and energy storage as well as renewable resources of energy. We also discuss aspects of optimising materials (e.g. nanostructured insula- ting materials, selective layers, highly activated carbons). The course is especially suitable for teaching degree students. Energy conservation via thermal insulation. Thermodynamic energy efficiency. Fossil fired energy con- verters. Nuclear power plants. Hydroelectricity. Wind turbines. Photovoltaics. Solar thermal: Heat. Solar thermal: Electricity. Biomass. Geothermal energy. Energy storage. Energy transport						
Intende	ed lear	ning outcomes					
		know the principles of ge. They understand th					
Course	S (type, r	number of weekly contact hour	s, language — if other than Ge	rman)			
V (3) + Module		t in: German or English					
		sessment (type, scope, lang		examination offered — if no	ot every semester, informati	ion on whether	
		le for bonus)			· ·		
 a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes) If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English Assessment offered: Once a year, winter semester 							
Allocat	ion of _l	places					
Additio	nal inf	ormation					
Worklo	ad						
180 h							
Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
§ 22 § 22 § 22	Nr. 2 f)						
Module	e appea	ars in					
LA Grundso School) (20		lactics in Physics (Primary		enerated 19-Apr-2025 • exam rundschulen (Didaktikfach) P	-	page 28 / 40	

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Bachelor's degree (1 major) Physics (2015) Bachelor's degree (1 major) Nanostructure Technology (2015) First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015) First state examination for the teaching degree Realschule Physics (2015) First state examination for the teaching degree Gymnasium Physics (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Mittelschule Physics (2015) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015) Master's degree (1 major) Functional Materials (2016) First state examination for the teaching degree Grundschule Physics (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018) First state examination for the teaching degree Realschule Physics (2018) First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) Bachelor's degree (1 major) Physics (2020) Bachelor's degree (1 major) Nanostructure Technology (2020) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Physics (2020) Bachelor's degree (1 major) Quantum Technology (2021) Master's degree (1 major) Functional Materials (2022) exchange program Physics (2023) Master's degree (1 major) Functional Materials (2025)

Module	Module title Abbreviation						
Curren	Current Topics of Teaching Concepts in Physics 11-L-APD-152-mo1						
Module	Module coordinator Module offered by						
chairperson of examination committee Faculty of Physics and Astronomy							
ECTS	ECTS Method of grading Only after succ. compl. of module(s)						
3							
	Duration Module level Other prerequisites						
	1 semester undergraduate						
	Contents						
		in physics education.					
		ning outcomes					
					al ava abla ta alagait		
		have knowledge of a cu e according to subject-				y the acqui-	
Course	S (type, r	number of weekly contact hours	, language — if other than Ge	rman)			
S (2)							
	_	t in: German or English					
		Sessment (type, scope, lang Ile for bonus)	uage — if other than German,	examination offered — if no	t every semester, informati	ion on whether	
		mination (approx. 45 m	inutos) or				
		nation of one candidate		ites) or			
		ation in groups (groups			ſ		
d) term	paper	(approx. 8 pages) or		1			
e) talk	(30 to 2	45 minutes) with discus	sion				
Allocation of places							
Additio	nal inf	ormation					
Worklo	ad						
90 h							
Teachi	ng cycl	e					
Referre	ed to in	LPO I (examination regulation	ons for teaching-degree progra	ammes)			
§ 22	Nr. 1 h)						
§ 22							
§ 22							
Module							
		mination for the teachi		, ,	/ - · · · · ·	,	
First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015)							
	First state examination for the teaching degree Realschule Physics (2015) First state examination for the teaching degree Gymnasium Physics (2015)						
				•	weice (Middle Scher	(204c)	
		mination for the teachi mination for the teachi	,		iysics (iviluale Schoo	n) (2015)	
		mination for the teachi		-	(Middle School) (20	015)	
		mination for the teachi				ינ	
		mination for the teachi		•	s (Primary School) (2	.018)	
		mination for the teachi		•	. ,		
LA Grunder	hulen Did	actics in Physics (Primary	IM∐ Würzhurg ● g	enerated 19-Apr-2025 • exam	. reg. data re-	page 30 / 40	
School) (20				undschulen (Didaktikfach) Pl	-	P~30 J0 / 40	

First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Realschule Physics (2020)

First state examination for the teaching degree Mittelschule Physics (2020)

Module title Abbreviation						
Scientific Work in Teaching Concepts 11-L-WPD-152-mo1						
Modul	Module coordinator Module offered by					
			Faculty of Physics a	nd Astronomy		
ECTS Method of grading Only after succ. compl. of module(s)				ind / iscience in y		
3						
Duratio	Duration Module level Other prerequisites					
1 seme	1 semester undergraduate					
Conter	nts					
Curren	t topics	in scientific work in phy	sics education			
Intend	ed lear	ning outcomes				
The stu	udents	have knowledge of a cur	rent subdiscipline of	physics education ar	nd are able to proces	s questions
		ucation on the basis of s		,	· · · · · · · · · ·	
Course	S (type, r	number of weekly contact hours,	language — if other than Gei	rman)		
S (2)						
	e taugh	t in: German or English				
Metho	d of ass	sessment (type, scope, langua	age — if other than German,	examination offered — if no	t every semester, informati	on on whether
		ole for bonus)			, ,	
talk (30	o to 45	minutes)				
	tion of p					
Additio	onal inf	ormation				
	_					
Workload						
90 h						
Teachi	ng cycl	e				
Referre	ed to in	LPO I (examination regulation	is for teaching-degree progra	immes)		
Referred to in LPO I (examination regulations for teaching-degree programmes) § 22 II Nr. 1 h)						
§ 22						
§ 22						
Modul	e appea	ars in				
		mination for the teachin	g degree Grundschule	Physics (2015)		
		mination for the teachin		-	s (Primary School) (2	015)
		mination for the teachin		•	. , , ,	57
First st	ate exa	mination for the teaching	g degree Gymnasium	Physics (2015)		
First st	ate exa	mination for the teachin	g degree Sonderpäda	gogik Didactics in Ph	nysics (Middle Schoo	ol) (2015)
1		mination for the teachin				
1		mination for the teaching			(Middle School) (20	015)
1		mination for the teachin		-		
		mination for the teaching		•	5 (Primary School) (2	018)
		mination for the teaching		•		
		mination for the teaching		-		
		mination for the teaching				
1		mination for the teaching				
		mination for the teaching				
LA Grundso School) (20		lactics in Physics (Primary		enerated 19-Apr-2025 • exam rundschulen (Didaktikfach) Pf	-	page 32 / 40

Julius-Maximilians-UNIVERSITÄT WÜRZBURG

First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Physics (2020)

In Physics 11-LX6-152-mo1 Module coordinator Module offered by chairperson of examination committee Faculty of Physics and Astronomy ECTS Method of grading Only after succ. compl. of module(s) 6 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Approval from examination committee required. Contents Current topics in physics. Intended learning outcomes The students have knowledge of a current subdiscipline of Physics and understand the measuring and/or calculation methods necessary to acquire this knowledge. They are able to classify the subject-specific contexts and know the application areas. Courses (type, number of weekly contact hours, language – if other than German) V (3) + R (1) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whethe module is creditable for bonus) a) written examination (approx. 90 to 120 minutes) or or b) oral examination of one candidate each (approx. 30 minutes) or or c) oral examination in groups (groups of 2, approx. 30 minutes) or or c) oral examination in groups (groups of 2, approx. 30 minutes) or or						
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a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or						
Workload						
180 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)						
Module appears in						

First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Grundschule Physics (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018) First state examination for the teaching degree Realschule Physics (2018) First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Physics (2020)

Module	Module title Abbreviation					
Selected Topics of Physics 11-LCS6-152-mo1						
Module	e coord	inator		Module offered by		
chairperson of examination committee Faculty of Physics and Astronomy						
ECTS	ECTS Method of grading Only after succ. compl. of module(s)					
4	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	semester undergraduate Approval from examination committee required.					
Conten	ts					
Current study a	•	in experimental physic	s. Credited academic a	achievements, e.g. ir	η case of change of ι	iniversity or
Intende	ed lear	ning outcomes				
sics of unders classify	the Bao tand th / the su	have advanced compete chelor's programme. Th le measuring and/or eve ubject-specific contexts	ey have knowledge of aluation methods nece and know the applicat	a current subdiscipli essary to acquire this ion areas.	ne of Experimental I	Physics and
		number of weekly contact hours	, language — if other than Ge	man)		
V (2) +						
		sessment (type, scope, lang le for bonus)	uage — if other than German,	examination offered — if no	t every semester, informat	ion on whether
 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 						
Allocat	ion of _l	olaces				
Additio	nal inf	ormation				
Worklo	ad					
120 h						
Teachi	ng cycl	e				
		LPO I (examination regulation	ns for teaching-degree progra	mmes)		
§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)						
Module appears in First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015) First state examination for the teaching degree Realschule Physics (2015) First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Physics (2015)						
LA Grundsc School) (20		actics in Physics (Primary		enerated 19-Apr-2025 • exam undschulen (Didaktikfach) Pł	•	page 36 / 40



First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Mittelschule Physics (2015) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Grundschule Physics (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018) First state examination for the teaching degree Realschule Physics (2018) First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020) First state examination for the teaching degree Gymnasium Physics (2020) First state examination for the teaching degree Realschule Physics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Physics (2020)

Module	Module title Abbreviation					
Experiments for science courses in primary schools 11-L-NEGS-152-m01						
Module	Module coordinator Module offered by					
holder of the Chair of Physics and its Didactics Faculty of Physics and Astronomy					nd Astronomy	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
2	(not) successfully completed					
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts	0	I			
	curricu	llum of Grundschule; pu			chemical contexts suitable for the l contexts; characteristic student	
Intende	ed lear	ning outcomes				
experin	nents s				difficulties; knowledge of pupils competencies in developing and	
Course	S (type, r	umber of weekly contact hours, l	language — if other than Ger	man)		
S (2)						
module is a) writt b) oral	ereditab en exai examir	^{le for bonus)} mination (approx. 45 min ation of one candidate e	utes) or ach (approx. 10 minu	tes) or	t every semester, information on whether	
		ation in groups (groups ((approx. 8 pages)	of 2, approx. 10 minut	tes per candidate) or		
Allocat	ion of p	olaces				
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.						
Additio	nal inf	ormation				
			-			
Worklo	ad					
60 h						
Teachi	ng cvcl	e				
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)		
§ 22						
Module	ŕ	ors in				
First sta First sta First sta First sta	ate exa ate exa ate exa ate exa	mination for the teaching mination for the teaching mination for the teaching	g degree Grundschule g degree Grundschule g degree Grundschule	e Didactics in Physics Physics (2018) Didactics in Physics	5 (Primary School) (2015) 5 (Primary School) (2018) 5 (Primary School) (2020)	





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.

Module ti	Module title Abbreviation					
Thesis in Physics Primary General School 11-L-HA-GS-DF-152-m01						
Module coordinator Module offered by						
chairpers	on of examination committee	9	Faculty of Physics a	and Astronomy		
ECTS M						
10 n	numerical grade					
Duration	Duration Module level Other prerequisites					
1-2 semes	ter undergraduate					
Contents						
Independ	ent processing of a topic of F	Physics and/or Didact	ics of Physics, chose	en in consultation with a lecturer.		
Intended	learning outcomes					
and meth		degree programme.		while applying the knowledge sent their results in written form in		
Courses (t	ype, number of weekly contact hours,	language — if other than Ge	rman)			
No course	es assigned to module					
	f assessment (type, scope, langue editable for bonus)	age — if other than German,	examination offered — if no	ot every semester, information on whether		
prox. 40 p Language	ages)	-	-	eaching-degree programmes) (ap- on 4 LPO I (examination regulati-		
Allocation	of places					
Additiona	l information					
Workload						
300 h						
Teaching	cycle					
Referred	to in LPO I (examination regulation	ns for teaching-degree progra	immes)			
§ 29						
Module a	ppears in					
First state	examination for the teachin	g degree Grundschule	e Didactics in Physic	s (Primary School) (2015)		
	examination for the teachin		-	-		
First state	examination for the teachin	g degree Grundschule	e Didactics in Physic	s (Primary School) (2020)		