

Subdivided Module Catalogue for the Subject

Mathematics

as Unterrichtsfach with the degree "Erste Staatsprüfung für das Lehramt an Mittelschulen"

> Examination regulations version: 2013 Responsible: Institute of Mathematics

JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record L7|105|-|-|H|2013

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:

LASPO2009

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

25-Sep-2014 (2014-53)

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.

The subject is divided into

Abbreviation	Module title	ECTS credits	Method of grading	page
Scientific Discipline (54 E	CTS credits)			•
Compulsory Courses (54	ECTS credits)			
10-M-EL1-092-m01	Elementary Mathematics 1 (German Grundschule/Hauptschu- le/Realschule)	7	NUM	11
10-M-EL2-092-m01	Elementary Mathematics 2 (German Grundschule/Hauptschu- le/Realschule)	11	NUM	13
10-M-M1GHR-092-m01	Basics in Mathematics (German Grundschule/Hauptschu- le/Gymnasium)	15	NUM	16
10-M-M2GHR-092-m01	Advances in Mathematics (German Grundschule/Hauptschu- le/Realschule)	18	NUM	18
10-M-M3GHR-092-m01	Revision Course in Mathematics (German Grundschule/Haupt- schule/Gymnasium)	3	B/NB	20
Teaching (12 ECTS credits))			•
10-M-DGHR-092-m01	Didactics of Mathematics (German Hauptschule/Realschule)	10	NUM	5
10-M-DVHS-092-m01	Advanced Didactics of Mathematics (German Hauptschule)	2	B/NB	10
Freier Bereich interdisciplin nex "Ergänzende Bestimmunş Mathematics	per of ECTS credits, students may take any modules from the are ary: The interdisciplinary additional offer for a teaching degree of gen für den "Freien Bereich" im Rahmen des Studiums für ein Le	an be four:	nd in the respec	ctive An
10-M-DCMU-092-m01	ell as subject-specific electives) subject specific) Computers in Mathematical Teaching	3	B/NB	4
10-M-DCM0-092-m01	Methodology of Teaching in Mathematics (German Hauptschu- le)	3	B/NB	4 7
10-M-DVHB-092-m01	E-Learning and Blended Learning in Mathematics at school	3	B/NB	8
10-M-VHBSto-092-m01	Stochastics in Sekundarstufe I (virtual course)	3	B/NB	27
10-M-VHBAri-092-m01	Basics in Arithmetics (virtual course)	3	B/NB	21
10-M-VHBGeo-092-m01	Basics in School Geometry (virtual course)	3	B/NB	23
10-M-VHBM10-092-m01	Mathematics in Class 10 (virtual course)	3	B/NB	25
Thesis (10 ECTS credits) Preparation of a written Haus teaching-degree programmes	arbeit (thesis) in accordance with the provisions of Section 29 L) is a prerequisite for teaching degree students to be admitted t ance with the provisions of Section 29 LPO I, students studying	o the Erste	Staatsprüfung	ions for

Module	e title				Abbreviation
Computers in Mathematical Teaching					10-M-DCMU-092-m01
Module coordinator				Module offered by	
Dean o	Dean of Studies Mathematik (Mathematics)			Institute of Mathem	atics
ECTS	i	od of grading	Only after succ. con		
3	(not) s	successfully completed		-	
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Discus puter te		possible ways to use cor	nputers in teaching n	nathematics as well	as discussion of common com-
Intend	ed learı	ning outcomes			
					ters in the teaching of mathema-
tics, as	well as	s with the potential and l	imitations of comput	er tools.	
Course	s (type	, number of weekly conta	ct hours, language –	if other than Germa	n)
V (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		e ssment (type, scope, la on on whether module ca			tion offered — if not every seme-
project	(type a	nd expenditure of time t	o be specified by the	lecturer at the begin	ning of the course)
		ffered: every two years, s			8
Allocat	ion of p	olaces			
Additio	onal info	ormation			
Worklo	ad				
Teachi	ng cycl	9			
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes)	
Module	e appea	in in			
		mination for the teaching	g degree Hauptschule	Mathematics (2009)
		-			natics (Secondary School) (2009)
First st	ate exa	mination for the teaching	g degree Realschule N	Aathematics (2009)	
		mination for the teaching			
		mination for the teaching		-	
First sta (2009)	ate exa	mination for the teaching	g degree Sonderpäda	gogik Didactics in M	athematics (Secondary School)
First sta (2013)	ate exa	mination for the teaching	g degree Sonderpäda	gogik Didactics in M	athematics (Middle School)
		mination for the teaching			
First st	ate exa	mination for the teachinន្	g degree Mittelschule	Didactics in Mathen	natics (Middle School) (2013)

Module title				Abbreviation	
	ics of Mathematics (German Ha		10-M-DGHR-092-m01		
Modul	e coordinator		Module offered by		
Dean o	f Studies Mathematik (Mathema	atics)	Institute of Mathem	natics	
ECTS	Method of grading	Only after succ. con	npl. of module(s)		
10	numerical grade				
Duratio		Other prerequisites			
3 seme	ester undergraduate				
Conter	its				
	sion of basic topics in teaching s as well as possibilities of impl			ule taking into account didactic ing modern technologies.	
Intend	ed learning outcomes				
accour	ident is acquainted with mather It the students'perception of ma teaching of mathematics, maste	thematical topics. He	e/She knows importa	ant aspects of planning and ana-	
Course	es (type, number of weekly conta	act hours, language –	- if other than Germa	n)	
• 1 • 1 t	odule has 4 components; inform o-M-DGHR-P-092: M (no informa o-M-DGHR-1-092, and 10-M-DGH act hours available) o-M-DGHR-3-092: V (no informa	ation on language and IR-2-092: V + Ü (no in	d number of weekly o Iformation on langua	contact hours available) ge and number of weekly con-	
				tion offered — if not every seme-	
	formation on whether module c			tion onered — It not every seme-	
	odule has the following 4 asses assessment components to pase	-		ise, students must pass all of	
le) (As	sment in module component 10- sessment Mathematics Didactic ECTS credit, numerical grading			- Prüfung (Haupt- und Realschu-	
• v k i	vritten examination (approx. 12 be replaced by an oral examinat n groups (groups of 2: approx. 4 i-media portfolio (as announced	ion of one candidate 5 minutes, groups of	each (approx. 30 m	inutes) or an oral examination	
• (t	Only after successful completion aken by students who successf OGHR-2 and 10-M-DGHR-3.	n of module compone			
Assess schule DGHR- Haupts	ment in module component 10-) (Mathematics Didactics - Algeb 2-092: Didaktik der Mathematik schule and Realschule) : 4 ECTS credits, pass / fail	ora, Hauptschule and - Geometrie (Haupt-	Realschule), and in und Realschule) (Ma	module component 10-M- athematics Didactics - Geometry,	
Ł	exercises: at the beginning of the successfully completed over the successfully completed.				
schule	sment in module component 10-) (Mathematics Didactics - Stoch ECTS credit, pass / fail			- Stochastik (Haupt- und Real-	
• e	exercises: at the beginning of the successfully completed over successfully completed.				

Additional information

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Workload

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 51 (1) 4. Mathematik Didaktik

§ 51 (1) 4. Mathematik Fachdidaktik

Module appears in

First state examination for the teaching degree Hauptschule Mathematics (2009) First state examination for the teaching degree Realschule Mathematics (2009)

Modul	e title				Abbreviation
Metho	dology	of Teaching in Mathema	tics (German Haupts	chule)	10-M-DMHS-092-m01
Modul	e coord	linator		Module offer	ed by
Dean o	of Studi	es Mathematik (Mathema	atics)	Institute of N	lathematics
ECTS	Meth	od of grading	Only after succ. con	npl. of module	(s)
3	(not)	successfully completed		F	
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts	•			
Discus	sion of	selected methods for tea	ching mathematics i	n Hauptschule	
		ning outcomes			-
their re	espectiv				s at German Hauptschule, can assess oy an appropiate method depending or
Course	es (type	, number of weekly conta	ict hours, language –	- if other than	German)
S (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language av	ailable)
ster, in	format	ion on whether module ca	an be chosen to earn	a bonus)	amination offered — if not every seme-
			ct (approx. 5 to 15 pa	ges) or c) port	folio (approx. 5 to 15 pages)
Allocat	tion of	places	-		
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
	0.,.				
Referre	ed to in	LPOI (examination regu	lations for teaching.	legree nrogram	nmes)
Modul	e appea	ars in			
		mination for the teaching	g degree Hauntschule	Mathematics	(2009)
					Mathematics (Secondary School) (2009
	ate exa	-			in Mathematics (Secondary School)
		mination for the teaching	g degree Sonderpäda	gogik Didactio	s in Mathematics (Middle School)
	ate exa	mination for the teaching	g degree Mittelschule	Mathematics	(2013)
Eirct ct	ato ova	mination for the teaching	r dogroo Mittalachula	Didactics in A	Asthomatics (Middle School) (2012)

	e title				Abbreviation
E-Learı	ning an	d Blended Learning in M	athematics at school		10-M-DVHB-092-m01
Modul	e coord	linator		Module offered by	<u> </u>
Dean o	of Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS	1	od of grading	Only after succ. com		
3	(not) successfully completed			•	
Duratio	on	Module level	Other prerequisites		
· -		undergraduate	Other prerequisitesCertain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for as- sessment into effect. Students who meet all prerequisites will be admit- ted to assessment in the current or in the subsequent semester. For as- sessment at a later date, students will have to obtain the qualification for admission to assessment anew. Courses offered online by Virtuelle Hochschule Bayern (vhb) in the field of mathematics are always incor- porated into a module with an exercise. The respective modules can be identified by the word virtuell (online) added in brackets. Registration for the exercise must always be made via SB@Home at the beginning of the course. This registration for the exercise will be considered a declaration of will to seek admission to assessment. If the exercise was successful- ly completed, the lecturer will put the registration for assessment into effect.		
Conter	nts	I			
		fered by Virtuelle Hochsc e-learning and blended l	÷		acquainted with and reflects on
Intend	ed lear	ning outcomes			
		s acquainted with basic n potentials and limitations	-	and blended learnir	ng in teaching methematics, as
Course	es (type	, number of weekly conta	ict hours, language —	if other than Germa	ın)
		tion on SWS (weekly con			
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme
web-ba course		oject assignments and te	ests (length/expendit	ure of time to be anr	nounced at the beginning of the
Allocat	tion of	places	-		
Additic	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	٥			
LCULII	ing cycl				

Module appears in

First state examination for the teaching degree Grundschule Mathematics (2009)

First state examination for the teaching degree Grundschule Didactics in Mathematics (Primary School) (2009) First state examination for the teaching degree Hauptschule Mathematics (2009)

First state examination for the teaching degree Hauptschule Didactics in Mathematics (Secondary School) (2009) First state examination for the teaching degree Realschule Mathematics (2009)

First state examination for the teaching degree Gymnasium Mathematics (2012)

First state examination for the teaching degree Gymnasium Mathematics (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Primary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Secondary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Middle School) (2013)

First state examination for the teaching degree Mittelschule Mathematics (2013)

Module title					Abbreviation
Advanc	ed Did	actics of Mathematics (G	ierman Hauptschule)		10-M-DVHS-092-m01
Module coordinator				Module offered by	
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
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	ts				
lar mat	hemat		analyses, contempo		nt different aspects, in particu- nathematics didactics as well as
Intende	ed lear	ning outcomes			
		s able to discuss central t t-specific, didactical and		eaching mathemation	cs in German Hauptschule, consi
Course	s (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)
S (no ir	nforma	tion on SWS (weekly cont	tact hours) and cours	e language available	2)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
a) talk	(appro	x. 60 minutes) or b) assig	gnment to be complet	ed at home (approx.	. 50 to 60 hours)
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo					
WORKIO	au		-		
Teachi	ng cyc	e	_		
	-				
Referre	ed to in	LPOI (examination regu	llations for teaching-o	degree programmes)	
§ 51 (1)	4. Mat	hematik Fachdidaktik			
Module	e appe	ars in			
First sta	ate exa	mination for the teaching	g degree Hauptschule	Mathematics (2009))
			,		matics (Secondary School) (2009
(2009)					athematics (Secondary School)
	ate exa	mination for the teaching	g degree Sonderpäda	gogik Didactics in M	athematics (Middle School)
(2013)					
		mination for the teaching		-) natics (Middle School) (2013)

Module coordinator Module offered by Dean of Studies Mathematik (Mathematics) Institute of Mathematics ECTS Method of grading Only after succ. compl. of module(s) 7 num=rical grade Duration Module level Other prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 setute to a setute the output of will to seek admission dents have obtained the qualification for admitte course of the semester, the lecturer will p 1 setute to a function to fundamental techniques in mathematics. Approach to the number system Intendetearming outcomes Intendet learming outcomes <th>out the respective details</th>	out the respective details
Dean of Studies Mathematik (Mathematics) Institute of Mathematics ECTS Method of grading Only after succ. compl. of module(s) 7 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites must be met to qualify f 1 semester undergraduate Certain prerequisites 1 semester undergraduate Sessment. The lecturer will inform students all at the beginning of the course. Registration for adm the course of the semester, the lecturer will presessment into effect. Students who meet all presessment into effect. Students who meet all presessment at a later date, students will have to admission to assessment an alter date, students will have to admission to asse	out the respective details
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7 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Certain prerequisites must be met to qualify f sessment. The lecturer will inform students al at the beginning of the course. Registration for sidered a declaration of will to seek admission dents have obtained the qualification for adm the course of the semester, the lecturer will p sessment into effect. Students who meet all p ted to assessment an the current or in the sub sessment at a later date, students will have to admission to assessment anew. Contents Introduction to fundamental techniques in mathematics. Approach to the number as tics, basic topics in elementary number theory and the structure of the number syster Intended learning outcomes The student knows the basic ways of thinking and working in mathematics, as well as matical proof methods. He/She is able to apply these skills to basic problems in the the structure of the number system. Courses (type, number of weekly contact hours, language — if other than German) V + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination ster, information on whether module can be chosen to earn a bonus) written examination (approx. 120 minutes); if announced by the lecturer, the written of ced by an oral examination of one candidate each (approx. 15 minutes) or an oral exa	out the respective details
Duration Module level Other prerequisites 1 semester undergraduate Certain prerequisites must be met to qualify f sessment. The lecturer will inform students al at the beginning of the course. Registration for sidered a declaration of will to seek admissio dents have obtained the qualification for adm the course of the semester, the lecturer will p sessment into effect. Students who meet all p ted to assessment in the current or in the sub sessment at a later date, students will have to admission to assessment anew. Contents Introduction to fundamental techniques in mathematics. Approach to the number syster Intended learning outcomes The student knows the basic ways of thinking and working in mathematics, as well as matical proof methods. He/She is able to apply these skills to basic problems in the the structure of the number system. Courses (type, number of weekly contact hours, language — if other than German) V + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination os ster, information on whether module can be chosen to earn a bonus) written examination (approx. 120 minutes); if announced by the lecturer, the written oc ced by an oral examination of one candidate each (approx. 15 minutes) or an oral exadidate	out the respective details
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V + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination of ster, information on whether module can be chosen to earn a bonus) written examination (approx. 120 minutes); if announced by the lecturer, the written of ced by an oral examination of one candidate each (approx. 15 minutes) or an oral examination	
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ster, information on whether module can be chosen to earn a bonus) written examination (approx. 120 minutes); if announced by the lecturer, the written ced by an oral examination of one candidate each (approx. 15 minutes) or an oral exa	
ced by an oral examination of one candidate each (approx. 15 minutes) or an oral exa	ffered — if not every seme-
of 2: approx. 20 minutes, groups of 3: approx. 30 minutes) or by a written and/or mul nounced)	mination in groups (groups
Allocation of places	
Additional information	
Workload	
Teaching cycle	
Referred to in LPO I (examination regulations for teaching-degree programmes)	
§ 51 (1) 3. Mathematik Elementare Zahlentheorie, Elementare Stochastik, Elementarg	eometrie
Module appears in	
First state examination for the teaching degree Grundschule Mathematics (2009)	
First state examination for the teaching degree Hauptschule Mathematics (2009) First state examination for the teaching degree Realschule Mathematics (2009)	
LA Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. d cord Lehramt Mittelschulen (Unterrichtsfach) Mathemati	ita re- page 11 / 28



	le title				Abbreviation
Elemer	ntary M	athematics 2 (Germa	an Grundschule/Haup	tschule/Realschule)	10-M-EL2-092-m01
Modul	Module coordinator			Module offered by	
Dean of Studies Mathematik (Mathema		hematics)	Institute of Mather	natics	
ECTS Method of grading		Only after succ.	compl. of module(s)		
11	nume	rical grade			
Duratio	on	Module level	Other prerequisi	ites	
2 seme	ester	undergraduate			
Conter	nts				
		o fundamental and a is well as stochastics		n mathematics. Basic t	opics in elementary and Euclide-
Intend	led lear	ning outcomes			
matica	al proof				well as the fundamental mathe- in the fields of Euclidean geomet
Course	es (type	, number of weekly c	contact hours, languag	ge — if other than Germa	an)
compo • 1 • 1	onent. 10-M-EL	2-P-092: M (no infor	mation on SWS (week	ly contact hours) and co eekly contact hours) and	isted separately for each module ourse language available) d course language available)
Metho ster, in Assess low. Ur vidual Assess	od of ass nformati sment in nless st assess	sessment (type, scop ion on whether modu n this module compri- ated otherwise, succ ments.	nformation on SWS (we be, language — if othe ule can be chosen to e ises the assessments cessful completion of t	r than German, examina earn a bonus) in the individual modu the module will require	le components as specified be-
Metho ster, in Assess low. Un vidual Assess schule • 0 f Assess le/Hau schule • 6 • 6	od of ass nformati sment in nless st assess sment in e/Realso 1 ECTS, written of replaced groups ti-media Only aft ponents sment in uptschu e) 6 ECTS, exercise be succ	sessment (type, scop ion on whether module ated otherwise, succe ments. module component chule) Method of grading: r examination (approx d by an oral examina (groups of 2: approx a portfolio (as annou er successful comple 5 10-M-EL2-1 and 10-M n module component le/Realschule) Eleme Method of grading: (es: At the beginning	nformation on SWS (we be, language — if othe ule can be chosen to e ises the assessments cessful completion of t t 10-M-EL2-P-092: Ele numerical grade (a. 90 minutes); if anno ation of one candidate (a. 30 minutes, groups nced) etion of module compo W-EL2-2 is a prerequis t 10-M-EL2-1-092: Eler entary Mathematics 2: (not) successfully com of the course, the lea	r than German, examination arn a bonus) in the individual modu the module will require mentary Mathematics 2 ounced by the lecturer, f e each (approx. 20 minuto of 3: approx. 45 minuto onents: Successful com ite for participation in n mentary Mathematics 2 : Geometry (German Gru upleted cturer will specify the t	ation offered — if not every seme le components as specified be- successful completion of all ind

Additional information

Workload

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Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 51 (1) 3. Mathematik Elementare Zahlentheorie, Elementare Stochastik, Elementargeometrie

Module appears in

First state examination for the teaching degree Grundschule Mathematics (2009) First state examination for the teaching degree Hauptschule Mathematics (2009) First state examination for the teaching degree Realschule Mathematics (2009) First state examination for the teaching degree Mittelschule Mathematics (2013)

Module title					Abbreviation
Thesis	in Mat	hematics (teaching degr	ee at German Haupts	chule)	10-M-HMHS-092-m01
Modul	e coord	inator		Module offered by	
Dean o	of Studi	es Mathematik (Mathem	atics)	Institute of Mathen	natics
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade	Where applicable, s supervisor.	pecific modules/mo	odule components as specified by
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conte	nts				
		y researching and writing supervisor.	g on a topic in mather	natics or mathemati	cs didactics selected in consulta-
Intend	ed lear	ning outcomes			
tained	during		aching degree progra	mme. He/She can w	pply the skills and methods ob- rrite down the result of his/her
Course	es (type	, number of weekly conta	act hours, language –	- if other than Germa	an)
no cou	irses as	signed			
		sessment (type, scope, la ion on whether module c			ation offered — if not every seme-
Langua	age of a	(approx. 250 to 300 hou ssessment: German, exc eaching degree program	eptions in accordanc	e with Section 29 Si	ubsection 4 LPO I (examination re
-	tion of				
Additi	onal inf	ormation			
Additi	onal inf	ormation on module dur	ation: 1 to 2 semester	s.	
Workle					
Teachi	ing cycl	e			
		-			
Roform	ed to in	LPOI (examination regu	lations for teaching	legree programmos)
Neielli)
 Modul		are in			
	e appea			Mathematics	2)
		mination for the teachin mination for the teachin	,		
11151 51	מוב פאמ		S DESICE MILLEISCITULE	mathematics (2013)

Modul	e title				Abbreviation
Basics	in Mat	hematics (German Grur	idschule/Hauptschule	/Gymnasium)	10-M-M1GHR-092-m01
Modul	e coord	inator		Module offered	by
Dean o	of Studi	es Mathematik (Mather	natics)	Institute of Math	•
ECTS		od of grading	Only after succ. com		
15	1	rical grade			
Duratio	I	Module level	Other prerequisites		
2 seme		undergraduate			
Conter		undergraduate			
	_	o the two most importa		matics, linear al	gobra and analysis
		ning outcomes			
is able orally a	to com and in v	prehend the central pro	oof methods, can perfo	rm easy mathem	analysis and linear algebra. He/Sh atical arguments and present then and employ methods of analysis
		, number of weekly con	tact hours. language —	- if other than Ger	rman)
compo • 1 • 1	nent. Io-M-M ⁻ Io-M-M ⁻	1GHR-P-092: M (no info 1GHR-1-092: V + Ü (no ir	rmation on SWS (week Iformation on SWS (wee	ly contact hours) ekly contact hour	e listed separately for each modul and course language available) s) and course language available) s) and course language available)
low. Ur		ated otherwise, succes			dule components as specified be- ire successful completion of all ind
schule • 1 • v r £ t • (/Gymna ECTS, vritten replaced groups i-media Dnly aft	asium) Method of grading: nun examination (approx. 12 d by an oral examinatio (groups of 2: approx. 4 a portfolio (as announce er successful completio 5 10-M-M1GHR-1 and 10	nerical grade 20 minutes); if annound on of one candidate ea 5 minutes, groups of 3 ed) on of module componer	ced by the lecture ch (approx. 30 m :: approx. 60 min nts: Successful co	ics (German Grundschule/Haupt- er, the written examination can be inutes) or an oral examination in utes) or by a written and/or mul- ompletion of the two module com- ipation in module component 10-
schule le/Gym • & * * * * * * * * * * * * * * * * * * *	/Haupt nnasiun ECTS, exercise be succ success sment in rundscl	schule/Gymnasium) Ba n) Method of grading: (no es: At the beginning of essfully completed ove fully completed. n module component 10 nule/Hauptschule/Gym	t) successfully complet the course, the lectur r the course of the sem o-M-M1GHR-2-092: Bas	Linear Algebra (G ted er will specify th tester for the mod sics in Mathemat	ics - Linear Algebra (German Grund erman Grundschule/Hauptschu- e type and scope of exercises to dule component to be considered ics - Analysis in one Variable (Ger- sis in one Variable (German Grund-
• 6 • e k	6 ECTS, exercise pe succ		the course, the lectur	er will specify th	e type and scope of exercises to dule component to be considered

LA Mittelschulen Mathematics (2013)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re-	page 16 / 28
	cord Lehramt Mittelschulen (Unterrichtsfach) Mathematik - 2013	

Additional information

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Workload

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Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 51 (1) 1. Mathematik Differential- und Integralrechnung, Gewöhnliche Differentialgleichungen

§ 51 (1) 2. Mathematik Lineare Algebra und Analytische Geometrie

Module appears in

First state examination for the teaching degree Grundschule Mathematics (2009) First state examination for the teaching degree Hauptschule Mathematics (2009) First state examination for the teaching degree Realschule Mathematics (2009)

Modul					Abbreviation
Advan	ces in I	Mathematics (German	Grundschule/Hauptsch	ule/Realschule)	10-M-M2GHR-092-m01
Modul	e coord	linator		Module offered by	,
		es Mathematik (Math	ematics)	Institute of Mather	
ECTS		od of grading	Only after succ. con		indies
18		rical grade			
Durati	on	Module level	Other prerequisites		
3 sem		undergraduate			
Contei	nts				
metry;	extens	ion of analysis from o			of linear algebra in analytic geo ifferential equations and applica
intend	led lear	ning outcomes			
and in and se them.	written everal v	form. He/She can an ariables, linear algebr	alyse basic mathematica a, analytic geometry and	al problems and em I the theory of ordin	uments and present them orally ploy methods of analysis in one ary differential equations to solv
Course	es (type	, number of weekly co	ontact hours, language –	- if other than Germ	an)
Metho ster, ir	d of as nformat	ion on whether modul	e, language — if other the le can be chosen to earn	a bonus)	ation offered — if not every seme
these	assessi	ment components to p	bass the module as a wh	ole.	wise, students must pass all of
schule • :	e) (Asse 1 ECTS (ssment Advanced Mat credit, numerical grad	thematics, Grundschule, ing	Hauptschule and R	
i	be repla in group	aced by an oral exami	nation of one candidate x. 45 minutes, groups of	each (approx. 30 m	r, the written examination may ninutes) or an oral examination tes) or by a written and/or mul-
• (Only af be take M2GHR	ter successful comple n by students who su -2 and 10-M-M2GHR-3	tion of module compon ccessfully completed the	e three module com	oonent 10-M-M2GHR-P can only nponents 10-M-M2GHR-1, 10-M-
(Grunc schule gen (G and Re (Grunc	d- , Hau e and Re rund-, I ealschu	pt- und Realschule) (A ealschule), in module Haupt- und Realschule le), and in module co	dvanced Mathematics - component 10-M-M2GH e) (Advanced Mathemati mponent 10-M-M2GHR-	Analysis in Several R-3-092: Aufbau Ma cs - Differential Equ 3-092: Aufbau Math	Analysis in mehreren Variablen Variables, Grundschule, Haupt- athematik - Differentialgleichun- ations, Grundschule, Hauptschu nematik - Differentialgleichungen ns, Grundschule, Hauptschule ar
• (credits (10-M-M2GHR- es: at the beginning c	2-092: 7 ECTS credits), p	ass / fail	

Additional information

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Workload

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Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 51 (1) 1. Mathematik Differential- und Integralrechnung, Gewöhnliche Differentialgleichungen

§ 51 (1) 2. Mathematik Lineare Algebra und Analytische Geometrie

Module appears in

First state examination for the teaching degree Grundschule Mathematics (2009) First state examination for the teaching degree Hauptschule Mathematics (2009) First state examination for the teaching degree Realschule Mathematics (2009)

Module title Abbreviation					Abbreviation	
Revisio	on Cour	se in Mathematics (Gern	nan Grundschule/Hau	ıptschule/Gymnasi-	10-M-M3GHR-092-m01	
um)						
Module coordinator				Module offered by		
Dean o	f Studie	es Mathematik (Mathema	atics)	Institute of Mathem	natics	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
3	<u> </u>	successfully completed				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate		ertain prerequisites must be met to qualify for admission to as-		
			sessment. The lecturer will inform students about the respective at the beginning of the course. Registration for the course will be sidered a declaration of will to seek admission to assessment. I dents have obtained the qualification for admission to assessm			
					will put their registration for as-	
					all prerequisites will be admit-	
Í					, ,	
			ted to assessment in the current or in the subsequent semester. For as sessment at a later date, students will have to obtain the qualification			
			admission to assessment anew.			
Conten	ts		<u>I</u>			
Revisio	n and o	consolidation of the topic	s covered in modules	s 10-M-M1GHR and 1	o-M-M2GHR by completing exer-	
		wering past state examin				
Intende	ed learı	ning outcomes				
The stu	dent h	as advanced knowledge	in the topics stated ir	n LPO I (examination	regulations for teaching degree	
prograr	nmes),	§51 (2) 1, 2, and is able	to apply them on the	level of the state exa	amination.	
Course	s (type	, number of weekly conta	ict hours, language —	if other than Germa	ın)	
Ü (no ir	nformat	tion on SWS (weekly cont	tact hours) and cours	e language available	2)	
					tion offered — if not every seme-	
		on on whether module c	an be chosen to earn	a bonus)		
talk (ap	prox. 2	₁ 5 minutes)				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ng cycl	e				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	irs in				
		mination for the teaching	g degree Grundschule	Mathematics (2009))	
		mination for the teaching		-		
		mination for the teaching		-		
First sta	ate exa	mination for the teaching	g degree Mittelschule	Mathematics (2013)		

Basics in Arithmetics (virtual course) Io-M-VHBAri-092-m01 Module coordinator Module coordinator Module sourcessfully completed (ont) successfully contact hours, language (ont) successfully completed (ont) suc	Module title	e			Abbreviation	
Deam of Studies Mathematik (Mathematics) Institute of Mathematics ECTS Method of grading Only after succ. compl. of module(s) 3 (not) successfully completed	Basics in Ai	rithmetics (virtual course)			10-M-VHBAri-092-m01	
ECTS Method of grading Onty after succ. compl. of module(s) 3 (not) successfully completed Duration Module level Other prerequisites 1 semester undergraduate Certain prerequisites must be met to qualify for admission to assessment. If students about the respective deta at the beginning of the course. Registration for the course will be consultation to assessment. If students have obtained the qualification for admission to assessment into effect. Students who meet all prerequisites will be admited to assessment into effect. Students will have to obtain the qualification for admission to a module with an exercise. The respective modules can t identified by the word withruel (online) added in brackets. Registration for the exercise must always be made via SB@Home at the beginning of course. This registration for the exercise must always be made via SB@Home at the beginning of course. This registration for the exercise was successfilly completed, the lecturer will put the registration for assessment into effect at the end of the course. Contents Basic topics in the teaching of arithmetics and the related mathematical backgrounds and proofs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Course (hope, number of weekly contact hours, language — if other than German) 0 (in information on whether module can be chosen to earn a bonus) Method of assessment and backgrounds and proofs. He/She is acquainted with the englon grad course language available) Method of assessments and tests (length/expenditure of time to be announced at the beginning of tourse) <	Module coo	ordinator		Module offered by	 סע	
3 (not) successfully completed - Duration Module level Other prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective deta at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students who meet all prerequisites in use the course of the semester, the lecturer will put their registration for a sessment in the current or in the subsequent semester. For a sessment into effect. Students who meet all prerequisites will be considered a declaration for admission to assessment at a later date, students will mave to obtain the qualification for admission to assessment at a later date, students will mave to obtain the qualification for admission to assessment will be considered a declaration of will to seek admission to assessment. The very is made with an exercise. The respective modules can a identified by the word virtuell (online) added in brackets. Registration for the exercise will be considered a declarat of will to seek admission to assessment. If the exercise was successful y completed, the lecturer will put the registration for assessment into effect. Students who meet all precupilise was successful y completed, the lecturer will put the registration for assessment into effect. Students who assessment. If the exercise was successful y completed, the lecturer will put their registration for assessment into effect. Students who meet all precupilises was used by the explored will be considered a declarat of will to seek admission to assessment. If the exercise was successful y completed, the lecturer will put their registration for assessment into effect. Students who meet all precupilises as a successful to explored the set admission to assessment into effect. The section gravita stude of the course. Contents <td colspan="2"></td> <td colspan="3"></td>						
Duration Module level Other prerequisites 1 semester undergraduate Certain prerequisites must be met to qualify for admission to as- sessment. The lecturer will inform students about the respective deta at the beginning of the course. Registration for the course will be con- sidered a declaration of will to seek admission to assessment. If stu- dents have obtained the qualification for admission to assessment. If stu- dents have obtained the qualification for admission to assessment. If sub- sessment into effect. Students who meet all prerequisites will be adm ted to assessment in the current or in the subsequent semester. For a sessment at a later date, students will have to obtain the qualification for admission to assessment anew. Courses offered online by Virtuell Hochschule Bayern (vhb) in the field of mathematics are always incor porated into a module with an exercise. The respective modules can identified by the word virtuell (online) added in brackets. Registration the exercise must always be made via SB@Home at the beginning of course. This registration for the exercise will be considered a declarat of will to seek admission to assessment. If the exercise was successfi ly completed, the lecturer will put the registration for assessment into fect at the end of the course. Contents The student learns basic topics in the teaching of arithmetics and the related mathematical backgrounds and proofs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Courses (type, number of weekly contact hours, language — if other than German) In information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not ev	ECTS Met	thod of grading				
a semester undergraduate Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective deta at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment in the use obtained the qualification for admission to assessment in the course of the semester, the lecturer will put their registration for a dmission to assessment in the fetct. Students who meet all prerequisites will be admited to assessment as a sessment in the current or in the subsequent semester. For a sessment into effect. Students will have to obtain the qualification for admission to assessment as a sessment as a sessment as a sessment mew. Courses offered online by Virtuell Hochschule Bayern (vhb) in the field of mathematics are always incor porated into a module with an exercise. The respective modules can the exercise must always be made via SB@Home at the beginning of course. This registration for the exercise will be considered a declarat of will to seek admission to assessment income sessment into the exercise will be considered a declarat of will to seek admission to assessment income fect at the end of the course. Basic topics on teaching arithmetics in school, e. g. divisability theory, prime numbers, set theory. Intended learning outcomes The student learns basic topics in the teaching of arithmetics and the related mathematical backgrounds and proofs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Courses (type, number of weekly contact hours, language — if other than German) 0 (no information on SWS (weekly contact hours) and course language available) Method of faces	3 (no	t) successfully completed				
Sessment. The lecturer will inform students about the respective deta at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment or the course of the semester, the lecturer will put their registration for a sessment into effect. Students who meet all prerequisites will be admited to assessment in the current or in the subsequent semester. For a sessment at a later date, students will have to obtain the qualification for admission to assessment. The field of mathematics are always incorporated into a module with an exercise. The respective modules can bidentified by the word virtuell (online) added in brackets. Registration the exercise must always be made via SB@Home at the beginning of course. This registration for the exercise was successful y completed, the lecturer will put the registration for assessment into effect at the end of the course. Contents Basic topics on teaching arithmetics in school, e. g. divisability theory, prime numbers, set theory. Interded learning outcomes The student learns basic topics in the teaching of arithmetics and the related mathematical backgrounds and profs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Courses (type, number of weekly contact hours, language — if other than German) 0 (no information on whether module can be chosen to earn a bonus) web-based project assignments and tests (length/expenditure of time to be announced at the beginning of to course). Allocation of places	Duration					
Contents Basic topics on teaching arithmetics in school, e. g. divisability theory, prime numbers, set theory. Intended learning outcomes The student learns basic topics in the teaching of arithmetics and the related mathematical backgrounds and proofs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Courses (type, number of weekly contact hours, language — if other than German) Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) web-based project assignments and tests (length/expenditure of time to be announced at the beginning of th course) Allocation of places Morkload Referred to in LPO I (examination regulations for teaching-degree programmes) Altitelschulen Mathematics (2013)	1 semester	undergraduate	sessment. The lectu at the beginning of t sidered a declaratio dents have obtained the course of the se sessment into effect ted to assessment in sessment at a later for admission to ass Hochschule Bayern porated into a modu identified by the wo the exercise must al course. This registra of will to seek admis ly completed, the le	rer will inform stude the course. Registrat of will to seek adm d the qualification for mester, the lecturer t. Students who mee on the current or in th date, students will h sessment anew. Cou (vhb) in the field of ule with an exercise. rd virtuell (online) ad ways be made via S ation for the exercise ssion to assessment cturer will put the re	ints about the respective details ion for the course will be con- nission to assessment. If stu- or admission to assessment over will put their registration for as- et all prerequisites will be admit- e subsequent semester. For as- ave to obtain the qualification rses offered online by Virtuelle mathematics are always incor- The respective modules can be dded in brackets. Registration fo B@Home at the beginning of the will be considered a declaration c. If the exercise was successful-	
Intended learning outcomes The student learns basic topics in the teaching of arithmetics and the related mathematical backgrounds and proofs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Courses (type, number of weekly contact hours, language — if other than German) Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) web-based project assignments and tests (length/expenditure of time to be announced at the beginning of th course) Allocation of places	1					
The student learns basic topics in the teaching of arithmetics and the related mathematical backgrounds and proofs. He/She is acquainted with the employment of new technologies for teaching arithmetic in school. Courses (type, number of weekly contact hours, language — if other than German) Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) web-based project assignments and tests (length/expenditure of time to be announced at the beginning of th course) Allocation of places Mdditional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) MU Würzburg • generated 26-Aug-2024 • exam. reg. data re- Page 21/			school, e. g. divisab	ility theory, prime nu	umbers, set theory.	
Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) web-based project assignments and tests (length/expenditure of time to be announced at the beginning of th course) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013)	The student proofs. He/	t learns basic topics in the She is acquainted with the	employment of new t	echnologies for tead	ching arithmetic in school.	
Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) web-based project assignments and tests (length/expenditure of time to be announced at the beginning of th course) Allocation of places Additional information Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Alittelschulen Mathematics (2013)					•	
Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 / page 21 /	Method of a ster, inform web-based	assessment (type, scope, la ation on whether module c	anguage — if other tha an be chosen to earn	an German, examina a bonus)	ition offered — if not every seme	
Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 /		of places	-			
Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 /	-					
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 / page 21 /	Additional i	information				
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 / page 21 /	-					
Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 /	Workload					
Referred to in LPO I (examination regulations for teaching-degree programmes) A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 /	-					
A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 /	Teaching cy	/cle				
	-					
 A Mittelschulen Mathematics (2013) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re- page 21 /	Referred to	in LPO I (examination regu	llations for teaching-o	degree programmes)		
	-					
CORD LODROM BUILTOICCHUION UINTORICHTCHOCH BAOTHOMOTIV 0040	A Mittelschulen	Mathematics (2013)				

Module appears in

First state examination for the teaching degree Grundschule Mathematics (2009)

First state examination for the teaching degree Grundschule Didactics in Mathematics (Primary School) (2009) First state examination for the teaching degree Hauptschule Mathematics (2009)

First state examination for the teaching degree Hauptschule Didactics in Mathematics (Secondary School) (2009) First state examination for the teaching degree Realschule Mathematics (2009)

First state examination for the teaching degree Gymnasium Mathematics (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Primary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Secondary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Middle School) (2013)

First state examination for the teaching degree Mittelschule Mathematics (2013)

Nodule title		Abbreviation			
Basics in Scl	nool Geometry (virtual co	urse)		10-M-VHBGeo-092-m01	
Nodule coor	dinator		Module offered by		
Dean of Stud	lies Mathematik (Mathem	atics)	Institute of Mather	natics	
	nod of grading	Only after succ. con	pl. of module(s)		
3 (not)	successfully completed				
Duration Module level Other pr		Other prerequisites	er prerequisites		
1 semester undergraduate		Certain prerequisites must be met to qualify for admission to as- sessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be con- sidered a declaration of will to seek admission to assessment. If stu- dents have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for as- sessment into effect. Students who meet all prerequisites will be admit- ted to assessment in the current or in the subsequent semester. For as- sessment at a later date, students will have to obtain the qualification for admission to assessment anew. Courses offered online by Virtuelle Hochschule Bayern (vhb) in the field of mathematics are always incor- porated into a module with an exercise. The respective modules can be identified by the word virtuell (online) added in brackets. Registration for the exercise must always be made via SB@Home at the beginning of the course. This registration for the exercise will be considered a declaration of will to seek admission to assessment. If the exercise was successful- ly completed, the lecturer will put the registration for assessment into ef- fect at the end of the course.			
Contents					
				hat are prerequisites for the sub Hauptschule, Realschule) in geo	
ntended lea	rning outcomes				
	has basic knowledge of so is acquainted with the em			of mathematics and its didac- ng geometry in school.	
Courses (typ	e, number of weekly conta	act hours, language —	- if other than Germa	an)	
J (no inform	ation on SWS (weekly con	tact hours) and cours	e language availabl	le)	
	ssessment (type, scope, la tion on whether module c			ation offered — if not every seme	
veb-based p course)	project assignments and to	ests (length/expendit	ure of time to be an	nounced at the beginning of the	
		_			

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Additional information

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Workload

Teaching cycle

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LA Mittelschulen Mathematics (2013)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data re-
	cord Lehramt Mittelschulen (Unterrichtsfach) Mathematik - 2013

Module appears in

First state examination for the teaching degree Grundschule Mathematics (2009)

First state examination for the teaching degree Grundschule Didactics in Mathematics (Primary School) (2009) First state examination for the teaching degree Hauptschule Mathematics (2009)

First state examination for the teaching degree Hauptschule Didactics in Mathematics (Secondary School) (2009) First state examination for the teaching degree Realschule Mathematics (2009)

First state examination for the teaching degree Gymnasium Mathematics (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Primary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Secondary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Middle School) (2013)

First state examination for the teaching degree Mittelschule Mathematics (2013)

Module	e title				Abbreviation
Mathematics in Class 10 (virtual course)			e)		10-M-VHBM10-092-m01
Module coordinator				Module offered by	
Dean o	f Studi	es Mathematik (Mathema	atics) Institute of Mathematics		natics
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
3	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
		undergraduate	Certain prerequisites must be met to qualify for admission to as- sessment. The lecturer will inform students about the respective detail at the beginning of the course. Registration for the course will be con- sidered a declaration of will to seek admission to assessment. If stu- dents have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for as sessment into effect. Students who meet all prerequisites will be admit ted to assessment in the current or in the subsequent semester. For as sessment at a later date, students will have to obtain the qualification for admission to assessment anew. Courses offered online by Virtuelle Hochschule Bayern (vhb) in the field of mathematics are always incor- porated into a module with an exercise. The respective modules can be identified by the word virtuell (online) added in brackets. Registration for the exercise must always be made via SB@Home at the beginning of th course. This registration for the exercise will be considered a declaration of will to seek admission to assessment. If the exercise was successful ly completed, the lecturer will put the registration for assessment into of fect at the end of the course.		
Conten	its	<u> </u>	<u> </u>		
Basic t	opics o	n teaching mathematics	in tenth grade in Hau	ptschule, Realschul	e and Gymnasium.
Intend	ed lear	ning outcomes			
schule	, as we		atical backgrounds ar	nd proofs. He/She is	German Mittelschule and Real- s acquainted with the employme
Course	s (type	, number of weekly conta	ict hours, language –	- if other than Germa	an)
Ü (no iı	nforma	tion on SWS (weekly con	tact hours) and cours	e language availabl	e)
					ation offered — if not every seme
		ion on whether module c	•	•	
web-ba course)	•	oject assignments and te	ests (length/expendit	ure of time to be ani	nounced at the beginning of the
Allocat	ion of _l	places			
Additio	onal inf	ormation			
Worklo	ad				

Teaching cycle

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Module appears in

First state examination for the teaching degree Hauptschule Mathematics (2009)

First state examination for the teaching degree Hauptschule Didactics in Mathematics (Secondary School) (2009) First state examination for the teaching degree Realschule Mathematics (2009)

First state examination for the teaching degree Gymnasium Mathematics (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Secondary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Middle School) (2013)

First state examination for the teaching degree Mittelschule Mathematics (2013)

	e title				Abbreviation
Stochastics in Sekundarstufe I (virtual course)			course)		10-M-VHBSto-092-m01
				Module offered by	
Dean of Studies Mathematik (Mathem		es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS	i	od of grading	Only after succ. com		
3		successfully completed			
		Module level	Other prerequisites		
Duration Module level 1 semester undergraduate			Certain prerequisites must be met to qualify for admission to as- sessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be con- sidered a declaration of will to seek admission to assessment. If stu- dents have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for as- sessment into effect. Students who meet all prerequisites will be admit- ted to assessment in the current or in the subsequent semester. For as- sessment at a later date, students will have to obtain the qualification for admission to assessment anew. Courses offered online by Virtuelle Hochschule Bayern (vhb) in the field of mathematics are always incor- porated into a module with an exercise. The respective modules can be identified by the word virtuell (online) added in brackets. Registration fo the exercise must always be made via SB@Home at the beginning of the course. This registration for the exercise will be considered a declaration of will to seek admission to assessment. If the exercise was successful- ly completed, the lecturer will put the registration for assessment into eff fect at the end of the course.		
Conten				-hti th -t -m-	
		consolidation of the fund ic courses in stochastics.		chastics that are pro	erequisites for the subject-speci
Intend	ed lear	ning outcomes			
		as basic knowledge of st s acquainted with the em			
Course	es (type	e, number of weekly conta	ict hours, language —	if other than Germa	an)
Ü (no iı	nforma	tion on SWS (weekly cont	tact hours) and cours	e language availabl	e)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme
web-ba course)		oject assignments and te	ests (length/expendit	ure of time to be ann	nounced at the beginning of the
Allocat	tion of	places			
Additio	onal inf	formation			
Worklo	ad				
Teachi	ng cycl	e			

Module appears in

First state examination for the teaching degree Hauptschule Mathematics (2009)

First state examination for the teaching degree Hauptschule Didactics in Mathematics (Secondary School) (2009) First state examination for the teaching degree Realschule Mathematics (2009)

First state examination for the teaching degree Gymnasium Mathematics (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Secondary School) (2009)

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Middle School) (2013)

First state examination for the teaching degree Mittelschule Mathematics (2013)