

Annex SFB

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

Responsible: Faculty of Chemistry and Pharmacy

Examination regulations version: 2009

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

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

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

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

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

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

Information on assessment procedures: Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should a module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with the general regulations governing the degree subject described in this module catalogue:

LASPO2009

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

12-Jan-2012 (2011-104)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

Every module will be described using the following form:

Abbreviation	Module title						
	ECTS		Duration	(in semesters)	Method of grading		Module level
	Courses		To be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y				
	Method of assessment						
	Only after successful completion of		if applicable				
	Other prerequisites		if applicable				
	Participants and allocation of places		if applicable				
	Additional information		if applicable				
	Referred to in LPO I		if applicable (examination regulations for teaching-degree programmes)				

Scientific Discipline (60 ECTS credits)							
Compulsory Courses (60 ECTS credits)							
o8-AC1-LA-102-m01	Inorganic Chemistry 1 (teaching degree)						
	ECTS	20	Duration	1 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none"> o8-AC1-1-102: V + V + Ü (no information on SWS (weekly contact hours) and course language available) o8-AC1-LA-2-102: P (no information on SWS (weekly contact hours) and course language available) o8-AC1-LA-3-102: V (no information on SWS (weekly contact hours) and course language available) 				
	Method of assessment		Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o8-AC1-1-102: Principles of Inorganic Chemistry Principles of Inorganic Chemistry Principles of Inorganic Chemistry <ul style="list-style-type: none"> 10 ECTS, Method of grading: numerical grade a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English Other prerequisites: Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence). Assessment in module component o8-AC1-LA-2-102: Inorganic and Analytical Chemistry (lab) (teaching degree) <ul style="list-style-type: none"> 7 ECTS, Method of grading: (not) successfully completed pre/post-experiment examination talks (Vor-/Nachtestate, approx. 15 minutes each), log (approx. 5 to 10 pages) Assessment offered: once a year, summer semester Language of assessment: German or English Assessment in module component o8-AC1-LA-3-102: Inorganic Chemistry 1 (accompanying lecture) (teaching degree) <ul style="list-style-type: none"> 3 ECTS, Method of grading: numerical grade a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English 				
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.				
	Referred to in LPO I		§ 42 (1) 1. Chemie "Allgemeine und Anorganische Chemie" und "Physikalische und Analytische Chemie" § 62 (1) 1. Chemie "Allgemeine und Anorganische Chemie"; "Physikalische und Analytische Chemie"				

o8-AS1-LARS-102-mo1	Chemistry of the elements							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	Referred to in LPO I	§ 42 (1) 1. Chemie "Allgemeine und Anorganische Chemie" und "Physikalische und Analytische Chemie"						
o8-OC1-GHR-092-mo1	Organic Chemistry 1 (teaching degree for secondary schools)							
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
Referred to in LPO I	§ 42 (1) 2. Chemie "Organische und Bioorganische Chemie"							
o8-OC2-GHR-092-mo1	Organic Chemistry 2 (teaching degree for secondary schools)							
	ECTS	7	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
Referred to in LPO I	§ 42 (1) 2. Chemie "Organische und Bioorganische Chemie"							
o8-OC-Prakt-GHR-092-mo1	Organic Chemistry - laboratory course (teaching degree for secondary schools)							
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	pre/post-experiment examination talks (Vor-/Nachtestate, approx. 15 minutes each), log (approx. 5 to 10 pages) Assessment offered: once a year, summer semester Language of assessment: German or English						
	Referred to in LPO I	§ 42 (1) 2. Chemie "Organische und Bioorganische Chemie"						

o8-PC-GHR-102-mo1	Physical Chemistry (teaching degree for secondary schools)							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
	Referred to in LPO I	§ 42 (1) 1. Chemie "Allgemeine und Anorganische Chemie" und "Physikalische und Analytische Chemie"						
o8-PC-Prakt-LARS-092-mo1	Physical Chemistry lab (teaching degree for secondary schools)							
	ECTS	3	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	pre/post-experiment examination talks (Vor-/Nachtestate, approx. 15 minutes each), log (approx. 5 to 10 pages) Assessment offered: once a year, winter semester Language of assessment: German or English						
	Referred to in LPO I	§ 42 (1) 1. Chemie "Allgemeine und Anorganische Chemie" und "Physikalische und Analytische Chemie"						
o8-PC-VKM-LA-102-mo1	Basic Mathematics (teaching degree)							
	ECTS	2	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	exercises (4 work sheets) Language of assessment: German or English						
o8-BC-GHR-092-mo1	Biochemistry (teaching degree for secondary schools)							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
	Referred to in LPO I	§ 42 (1) 2. Chemie "Organische und Bioorganische Chemie"						

o8-Ch-R-ÜiV-092-m01	Exercises in Experimental Presentation, Intermediate School							
	ECTS	6	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">o8-Ch-LA-ÜiV-1-092: Ü (no information on SWS (weekly contact hours) and course language available)o8-Ch-LA-ÜiV-2-092: Ü (no information on SWS (weekly contact hours) and course language available)o8-Ch-R-ÜiV-3-092: Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o8-Ch-LA-ÜiV-1-092: Exercises in Experimental Presentation (Inorganic Chemistry) <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedtalk with demonstrations (approx. 45 minutes)Assessment offered: once a year, winter semesterLanguage of assessment: German or English Assessment in module component o8-Ch-LA-ÜiV-2-092: Exercises in Experimental Presentation (Organic Chemistry) <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedtalk with demonstrations (approx. 45 minutes)Assessment offered: once a year, winter semesterLanguage of assessment: German or English Assessment in module component o8-Ch-R-ÜiV-3-092: Exercises in Experimental Presentation in Physical Chemistry for Intermediate School Teachers <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedtalk with demonstrations (approx. 45 minutes)Assessment offered: once a year, winter semesterLanguage of assessment: German or English					
	Modules successfully completed		o8-PC-Prakt-LARS					
	Referred to in LPO I		§ 42 (1) 3. Chemie "Übungen im Vortragen mit Demonstrationen"					

Teaching (12 ECTS credits)								
o8-FD-Gru-RS-092-m01	Chemistry Education: Technical Contents and Practicabilities in Schools							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">o8-FD-Einf-1-092: V (no information on SWS (weekly contact hours) and course language available)o8-FD-Gru-RS-2-092: S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o8-FD-Einf-1-092: Introduction in Chemistry Education <ul style="list-style-type: none">3 ECTS, Method of grading: numerical gradewritten examination (approx. 90 minutes)Language of assessment: German or English Assessment in module component o8-FD-Gru-RS-2-092: Chemistry Lesson at Intermediate Schools (Part I) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 45 minutes)Language of assessment: German or English						
	Referred to in LPO I	§ 36 (1) 7. Didaktik der Grundschule Chemie § 38 (1) 1. Didaktik der Hauptschule Chemie § 38 (1) 1. Didaktik der Mittelschule Chemie § 42 Chemie Fachdidaktik § 62 (1) 6. Chemie Didaktik						
o8-FD-CEx-092-m01	Chemistry Education, Part II							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
	Participants and allocation of places	Number of places: 25. Places will be allocated according to the number of subject semesters. Among applicants with the same number of subject semesters, places will be allocated by lot.						
	Referred to in LPO I	§ 42 Chemie Fachdidaktik § 62 (1) 6. Chemie Didaktik						

o8-FD-IGP-092-mo1	Didactics of Chemistry, Part III							
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">o8-FD-Gru-RSGy-2-092: S (no information on SWS (weekly contact hours) and course language available)o8-FD-IGP-1-092: S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o8-FD-Gru-RSGy-2-092: Basics of Planning and Organization of Chemistry Education <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedTestat (exam, approx. 20 minutes)Language of assessment: German or English Assessment in module component o8-FD-IGP-1-092: Didactics of Chemistry, Part III <ul style="list-style-type: none">3 ECTS, Method of grading: (not) successfully completedpresentation (approx. 45 minutes)Language of assessment: German or English						
	Referred to in LPO I	§ 42 Chemie Fachdidaktik § 62 (1) 6. Chemie Didaktik						
Freier Bereich (general as well as subject-specific electives) 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".								
Chemistry (Freier Bereich (general as well as subject-specific electives) -- subject specific)								
o8-OC-Spec-LAGY-092-mo1	Practical spectroscopy 1 (teaching degree for secondary schools)							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	Referred to in LPO I	§ 62 (1) 2. Chemie "Organische und Bioorganische Chemie"						
o8-AC2-PS-LA-102-mo1	Practical spectroscopy 2 (teaching degree for secondary schools)							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						

o3-TR-072-m01	Toxicology and legal studies							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + V (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 90 minutes)						
o8-AC2-LAGY-102-m01	Inorganic Chemistry of the Elements (teaching degree for secondary schools)							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	Referred to in LPO I	§ 62 (1) 1. Chemie "Allgemeine und Anorganische Chemie"; "Physikalische und Analytische Chemie"						
o8-AC3-LA-102-m01	Elemental Organic Chemistry (teaching degree for secondary schools)							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English						
	Modules successfully completed	o8-AC1 (module component o8-AC1-4 only) and o8-OC3 (module component o8-OC3-2 only)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
o8-TC-LA-092-m01	Theoretical Models in Chemistry (teaching degree for secondary schools)							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						

o8-PC-ESS-092-m01	Electronic structure and spectroscopy							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
o8-OC3-LA-102-m01	Organic Chemistry 3 (teaching degree for secondary schools)							
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	Modules successfully completed	o8-OC1 or o8-OC1-GHR						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
o8-OC4-LAGY-102-m01	Organic Chemistry 4 - advanced course							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German or English						
	Modules successfully completed	o8-OC1 or o8-OC1-GHR						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
	Referred to in LPO I	§ 62 (1) 2. Chemie "Organische und Bioorganische Chemie"						

o8-PC4-092-m01	Physical Chemistry 4: Statistical Thermodynamics							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
o8-PC3-092-m01	Physical and Theoretical Chemistry 3: Symmetry and Quantum Chemistry							
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü + V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
o8-FBC2-PV-101-m01	Preparation of Exams Chemistry							
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">o8-FBC2-PV-1-101: S (no information on SWS (weekly contact hours) and course language available)o8-FBC2-PV-2-101: S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o8-FBC2-PV-1-101: Preparation of Exams Inorganic Chemistry <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedsuccessful participation in the form of short presentations on selected assignmentsAssessment offered: once a year, summer semesterLanguage of assessment: German or English Assessment in module component o8-FBC2-PV-2-101: Preparation of Exams Organic Chemistry <ul style="list-style-type: none">3 ECTS, Method of grading: (not) successfully completedsuccessful participation in the form of short presentations on selected assignmentsAssessment offered: once a year, summer semesterLanguage of assessment: German or English						
	Modules successfully completed	o8-OC2-GHR and o8-OC-Prakt-GHR or o8-OC2-LAGY and o8-OC-Prakt-LAGY						

Teaching (Freier Bereich (general as well as subject-specific electives) -- subject specific)								
o8-FD-WPF-WA-092-m01	Guidance in Self-reliant Scientific Work							
	ECTS	2	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	presentation (approx. 30 minutes) Language of assessment: German or English						
o8-FD-WPF-LLL-092-m01	Extracurricular Sites							
	ECTS	4	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">o8-FD-WPF-LLL-1-092: S (no information on SWS (weekly contact hours) and course language available)o8-FD-WPF-LLL-2-092: P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o8-FD-WPF-LLL-1-092: Opportunities of Extracurricular Sites <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedpresentation of a project (approx. 30 minutes)Language of assessment: German or English Assessment in module component o8-FD-WPF-LLL-2-092: School Lab <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedsuccessful supervision of experiments in learn-teach-labLanguage of assessment: German or English						
o8-FD-WPF-PVRS-092-m01	Preparation of Exams (Intermediate Scholl Teachers)							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 30 minutes)						
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 Realschule may write this thesis in one of the subjects 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.								
o8-Ch-HA-UF-RS-092-m01	Admission work (Chemistry for Intermediate School Teachers)							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	no courses assigned						
	Method of assessment	written thesis (Zulassungsarbeit, approx. 40 pages) Language of assessment: German, exceptions in accordance with Section 29 LPO I (examination regulations for teaching degree programmes)						
	Modules successfully completed	Where applicable, specific modules/module components as specified by supervisor.						
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