

<b>Module title</b>		<b>Abbreviation</b>
Inorganic Chemistry 1 (teaching degree)		o8-AC1-LA-102-mo1
<b>Module coordinator</b>		<b>Module offered by</b>
lecturer of lecture "Experimentalchemie" (Experimental Chemistry)		Institute of Inorganic Chemistry
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
20	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	By way of exception, additional prerequisites are listed in the section on assessments.
<b>Contents</b>		
<p>This module provides students with an overview of the fundamental principles of chemistry. It focuses on particles, metals, acid-base reactions, the periodic table, chemical equilibrium and complexometry. In addition, the module introduces fundamental models of chemistry and principles of inorganic chemistry. It includes practical exercises based on the lecture on experimental chemistry and its extension. After a safety briefing, the students autonomously conduct experiments in the laboratory. The course focuses on laboratory safety, simple lab techniques, the synthesis of simple substances and analyses of unknown substances. In addition, students have the opportunity to advance their laboratory knowledge.</p>		
<b>Intended learning outcomes</b>		
<p>Students are able to explain the principles of the periodic table and to extract information from it. They are able to explain basic models of the structure of matter. They have developed the ability to use the language of chemical formulas to describe chemical reactions and to interpret them by identifying the type of reaction. Students are able to describe the main quantitative and qualitative analytical methods and their application areas. They are able to identify fundamental problems in chemistry and perform experiments to solve them. They have developed the ability to perform the necessary stoichiometric calculations and describe the chemical processes in an appropriate manner, both in written and oral form.</p>		
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)		
<p>This module comprises 3 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• o8-AC1-1-102: V + V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• o8-AC1-LA-2-102: P (no information on SWS (weekly contact hours) and course language available)</li> <li>• o8-AC1-LA-3-102: V (no information on SWS (weekly contact hours) and course language available)</li> </ul>		
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>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.</p> <p><b>Assessment in module component o8-AC1-1-102:</b> Principles of Inorganic Chemistry Principles of Inorganic Chemistry Principles of Inorganic Chemistry</p> <ul style="list-style-type: none"> <li>• 10 ECTS, Method of grading: numerical grade</li> <li>• 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)</li> <li>• Language of assessment: German or English</li> <li>• 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).</li> </ul> <p><b>Assessment in module component o8-AC1-LA-2-102:</b> Inorganic and Analytical Chemistry (lab) (teaching degree)</p> <ul style="list-style-type: none"> <li>• 7 ECTS, Method of grading: (not) successfully completed</li> </ul>		

- 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 08-AC1-LA-3-102:** Inorganic Chemistry 1 (accompanying lecture) (teaching degree)

- 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

#### Allocation of places

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#### Additional information

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#### Workload

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

§ 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"

#### Module appears in

First state examination for the teaching degree Grundschule Chemistry (2009)  
First state examination for the teaching degree Grundschule Didactics in Chemistry (Primary School) (2009)  
First state examination for the teaching degree Hauptschule Chemistry (2009)  
First state examination for the teaching degree Hauptschule Didactics in Chemistry (Secondary School) (2009)  
First state examination for the teaching degree Realschule Chemistry (2009)  
First state examination for the teaching degree Gymnasium Chemistry (2009)  
First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Secondary School) (2009)  
First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2013)  
First state examination for the teaching degree Mittelschule Chemistry (2013)  
First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2013)