

Module title		Abbreviation
Inorganic Chemistry 1		o8-AC1-102-m01
Module coordinator		Module offered by
lecturer of lecture "Experimentalchemie" (Experimental Chemistry)		Institute of Inorganic Chemistry
ECTS	Method of grading	Only after succ. compl. of module(s)
21	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	By way of exception, additional prerequisites are listed in the section on assessments.
Contents		
<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>		
Intended learning outcomes		
<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>		
Courses (type, number of weekly contact hours, language — if other than German)		
<p>This module has 4 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> • o8-AC1-1-102: V + V + Ü (no information on language and number of weekly contact hours available) • o8-AC1-2-102: P (no information on language and number of weekly contact hours available) • o8-AC1-3-102: V (no information on language and number of weekly contact hours available) • o8-AC1-4-102: P (no information on language and number of weekly contact hours available) 		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>This module has the following 4 assessment components. Unless stated otherwise, students must pass all of these assessment components to pass the module as a whole.</p> <p>Assessment in module component o8-AC1-2-102: Praktikum Anorganische Chemie 1 (Lab Course Inorganic Chemistry 1)</p> <ul style="list-style-type: none"> • 6 ECTS credits, pass / fail • 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, English • Only after successful completion of module components: Module component o8-AC1-2 can only be taken by students who successfully completed module component o8-AC1-4. <p>Assessment in module component o8-AC1-3-102: Erläuterungen zum Praktikum Anorganische Chemie 1 (Discussion of Experiments Performed in Lab Course Inorganic Chemistry 1)</p> <ul style="list-style-type: none"> • 4 ECTS credits, numerical grading • a) 1 to 3 written examinations (approx. 45, 60 or 90 minutes each) or x) oral examination of one candidate each (approx. 20 minutes) or x) oral examination in groups of 2 candidates (approx. 30 minutes total) 		

- Language of assessment: German, English

Assessment in module component 08-AC1-4-102: Sicheres Arbeiten in chemischen Laboratorien (Chemical Laboratory Safety)

- 1 ECTS credit, pass / fail
- Assessment of practical assignments
- Language of assessment: German, English

Assessment in module component 08-AC1-1-102: Grundlagen der Allgemeinen und Anorganischen Chemie (Fundamental Principles of General and Inorganic Chemistry)

- 10 ECTS credits, numerical grading
- a) 1 to 3 written examinations (1 written examination: approx. 90 minutes, 2 written examinations: 60 minutes 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 of 2 candidates (approx. 30 minutes)
- Language of assessment: German or English
- Additional 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 no more than 2 incidents of unexcused absence).

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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

Bachelor' degree (1 major) Chemistry (2010)

Bachelor' degree (1 major) FOKUS Chemistry (2011)