

Course description

Course abbreviation:	KCH/SANC1	Page:	1 / 2
Course name:	Seminar - Inorganic Chemistry 1		
Academic Year:	2016/2017	Printed:	20.01.2018 04:04

Department/Unit /	KCH / SANC1	Academic Year	2016/2017
Title	Seminar - Inorganic Chemistry 1	Type of completion	Pre-Exam Credit
Accredited/Credits	Yes, 2 Cred.	Type of completion	Oral
Number of hours	Seminář 2 [Hours/Week]		
Occ/max	Status A Status B Status C	Course credit prior to	NO
Summer semester	0 / - 34 / - 0 / 0	Counted into average	NO
Winter semester	0 / 0 0 / 0 0 / 0	Min. (B+C) students	not determined
Timetable	Yes	Repeated registration	NO
Language of instruction	Czech	Semester taught	Winter, Summer
Substituted course	None	Internship duration	0
Preclusive courses	N/A		
Prerequisite	N/A		
Informally recommended courses	N/A		
Courses depending on this Course	N/A		

Course objectives:

Aims

The subject deals with study of properties of elements and the single inorganic compounds including their theoretical and practical applications. Theoretical base of the laboratory preparation of the selected inorganic compounds, their isolation and characterization.

Requirements on student

Evaluation of the subject as well as the exam grading is made according to the articles No 31 - 33 in the Regulations on Study and Examinations University of Ostrava

Content

Content

- 1 Periodic table of elements, relations, assessment of properties of elements and their compounds according their position in periodic table.
- 2 Solubility of compounds, estimation of the precipitating reactions courses. Strengths of acids and bases, neutralization, salt cake process, hydrolysis.
- 3 Stability of the elements oxidative state, Frots' s diagrams, estimation of the redox reactions courses, oxidizing and reducing agents.
- 4 Test
- 5 Reactions of the 1. and 2. group elements and their compounds
- 6 Reactions of the 13. and 14. group elements and their compounds
- 7 Test
- 8 Reactions of the 15. group elements and their compounds
- 9 Reactions of the 16. and 17. group elements and their compounds
- 10 Test
- 11 The seminary reports
- 12 The seminary reports
- 13 The seminary reports and the credits awarding

Prerequisites - other information about course preconditions

none

Competences acquired

Competences

The students can predict the basic reactions courses in inorganic chemistry. They orientate in reactivity of s- and p-elements and their compounds.

Fields of study**Guarantors and lecturers**

- **Guarantors:** doc. RNDr. Václav Slovák, Ph.D.
- **Seminar lecturer:** doc. RNDr. Václav Slovák, Ph.D.

Literature

- **Basic:** Leško,J. - Tržil,J. - Štarha,R. *Anorganická chemie, VŠB-TU Ostrava,2000..*
- **Recommended:** Housecroft E.H., Sharpe A.G. *Anorganická chemie. Praha, 2014.*

Time requirements

Activities	Time requirements for activity [h]
Being present in classes	26
Preparation for test	24
Total:	50

assessment methods**professional knowledge**

Continuous analysis of student's achievements

teaching methods**professional knowledge**

Dialogic (discussion, dialogue, brainstorming)

learning outcomes**professional knowledge - knowledge resulting from the course:**

Competences

The students can predict the basic reactions courses in inorganic chemistry. They orientate in reactivity of s- and p-elements and their compounds.

Course is included in study programmes:

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Chemistry	Bachelor	Full-time	Chemistry	1	2012	2016	Povinně volitelné předměty	B	1	LS
Chemistry	Bachelor	Full-time	Chemistry with Other Degree Specialization	1	2	2016	Povinně volitelné předměty	B	1	LS
Chemistry	Bachelor	Full-time	Chemistry with Other Degree Specialization	1	2014	2016	Povinně volitelné předměty	B	1	LS
Physics	Bachelor	Full-time	Chemistry with Other Degree Specialization	1	2014	2016	Povinně volitelné předměty	B	1	LS