UNIVERSITETI I MITROVICËS
'ISA BOLETINI'

Course Outline Model (Syllabus)		
Faculty:	**Faculty of Geoscience**	
Name of study program:	**Materials and metallurgy**	
Department:	**Materials and metallurgy**	
Level:	**Bachelor**	
The code of subject:	**3**	
Subject:	**General Chemistry**	
Subject Status:		Compulsory
Semester:		Winter
Total hours:		3+2
ECTS:		6
Schedule / Hall	As approved schedule	
Academic year:		
Professor:	Prof. Asoc. Dr. Fatos Rexhepi	
Assistants:	Mimoza Kovaçi	
Contacts:		Assistant
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Phone:		

BRIEF CONTENT OF SUBJECT	*The course includes theoretical and practical basic knowledge of general chemistry as substances and their properties, structure of atoms and the periodic system, chemical bonds. Solutions, electrolytes. Chemical reactions, rate and equilibrium of chemical reactions.*
AIMS	*Students through lectures, stoichiometric calculations and laboratory work - experimental tasks, should be achieved sufficient knowledge that can be able to attend and easier to understand other subjects which is based on the general chemistry.*
EXPECTED LEARNING OUTCOMES	*1. Through lectures to be able to independently understand basics of general chemistry* *2. Perform stoichiometric basic calculations that are the basis for further calculations in other more advanced courses.* *3. To be trained to freely manipulate chemicals and recognize most basic tools used in chemical laboratories*

PROGRAM	**Weeks**	Topic and Readings
	Week - I	History of Chemistry. Structure and properties of matter. Measurement in chemistry
	Week - II	Basic laws in chemistry. Atomic and molecular mass. Molar mass and molar volume. Stoichiometry of Formulas.
	Week - III	Major Classes of Chemical Reactions. Stoichiometry of chemical equations.
	Week - IV	Thermochemistry. Standard Molar Enthalpy. Thermochemistry laws. Energy Flow and Chemical Change
	Week - V	Structure of the atom. Quantum theory. The wave -Mechanical model of atom
	Week - VI	Periodic system and chemical periodicity
	Week - VII	Chemical bonds. Ionic bonds and compounds. Covalent bonds
	Week - VIII	Hybrid orbitals. Molecular orbital theory and geometry of the compounds. Carbon compounds with one, two and triple bond.
	Week - IX	Intermolecular forces: liquids, solids and phase change.
	Week - X	History of Chemistry. Structure and properties of matter. Measurement in chemistry
	Week - XI	Basic laws in chemistry. Atomic and molecular mass. Molar mass and molar volume. Stoichiometry of Formulas.
	Week - XII	Major Classes of Chemical Reactions. Stoichiometry of chemical equations.
	Week - XIII	Thermochemistry. Standard Molar Enthalpy. Thermochemistry laws. Energy Flow and Chemical Change
	Week - XIV	Structure of the atom. Quantum theory. The wave -Mechanical model of atom
	Week - XV	Periodic system and chemical periodicity
LITERATURE	1. Kimi e përgjithshme dhe Inorganike. Ivan Filipovic dhe Stjepan Lipanovic Shkollska knjiga – Zagreb , Universiteti i Prishtinës, 1997. 2. "General Chemistry", J.W. Hill, R.H. Petrucci, T.W. McCreary, S.S. Petry, Fourth edition,Published by Pearson Education,(Translation in Albanian by Tabernakul, 2014) 3. Zana Gaçe, "Kimia e pergjithshme dhe inorganike"- pjesa I. Tirane 2010.	
TEACHING METHODOLOGY	*Interactive lectures, numerical and laboratory exercises. Tests during the lectures.*	

Contribution to student workload (which should correspond to student learning outcomes 1 ECTS credit = 25 hours)			
Activity	**Hours**	**Day/Week**	**Total**
Lectures	3	15	45
Exercise sessions - theoretical	2	15	30
Field exercises			
Practical work	1	3	3
Consultation with the professor / assistant			
Colloquiums / seminars	2	4	8
Independent tasks (work)	2	3	6
Student self study time (in library or at home)	2	15	30
Final exam preparation	20	1	20
Time spent in assessment (tests, quizzes, final exams)	2	3	6
Projects, presentations, etc.	1	2	2
Total			**175**

EVALUATION

Evaluation methods [according to the Statute and Regulation of UMIB Studies]	
Tests	35
Practical test during exercises	5
Seminary work (in word)	
Interpretation and presentation of seminary work	10
Tasks and essays during the semester	10
Final exam	40

ACADEMIC POLICIES	*Regular attendance is required of students in lectures and exercises. Rules of etiquette as to maintain the quietness during lectures, entry in time the hall of learning, turn of the mobile phones also are necessary.*

Mitrovica

Subject teaching professor:

Date:

Ali Sadiku
(Name Surname)

(Signature)