UNIVERSITY "UKSHIN HOTI" PRIZREN

Educational faculty

PROGRAM: **Primary and Preschool program**

SYLLABUS							
Level of studies	Bachelor	***Program***	EDU-Bos	***Academic year***	2018/2019		
SUBJECT	**Fundamentals of Natural Sciences with Methodology I**						
Year	1rd	***Status Of the subject***	Obligatory	***Code***		***ECTS credits***	7
Semester	IV						
Teaching weeks	15	***Hours teaching***	75	***Lectures***	***Exercises***		
				3	2		
Teaching Methodology	**Lectures, exercices, seminar papers, consultations, etc.**						
Consultations	**1 hr / week**						
Professor	**Prof. ass. Ajka Aljilji**	***E-mail:***	ajka.aljilji@uni-prizren.com				
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Assistant		***E-mail:***					
		Tel.:					

Study goal and table of content	Benefits of student
Realizing a natural science program gives students basic knowledge of phenomena and processes in nature. In the interpretation of the phenomenon, wherever possible, one must start from the reflections, observations and measurements. The purpose of such an approach is to develop the ability to perceive and break up changes as well as to draw conclusions based on the results of objective measurement and experimental testing. In this way, many of the information that has been presumed to date by the students as facts are replaced by methods of observing and comparing spontaneous changes in nature or induced processes in a chemical laboratory. Teaching approaches will provide a better understanding of chemical changes. Developing understanding of chemical concepts is achieved through a variety of activities that include practical work, discussion lessons, and problem-research work.	Knowledge: ▪ The central theme and the students' profit in studying the basis of natural sciences with the methodology is that students get basic knowledge of what is happening in nature. ▪ The purpose and goal of this course is that students learn to interpret significant natural phenomena. ▪ In creative learning of natural sciences, students will master the knowledge in the laboratory and the technique of performing the experiment. ▪ It will also learn the technique of writing tests from of natural sciences, the importance of using professional expressions and symbols. ▪ Students through education should learn development of the materials they encounter every day, as well as its impact on the quality of their lives.

Methodology for the implementation of educational topics:		
▪ Presentation of a teaching topic in Power Point (the student can download the presentation . ▪ A student case or task (during exercise) is associated with a lecture topic. ▪ Practical work with students in the laboratory. Analysis of the experiment.		
Conditions for realization of educational topics:		
Adequate literature, tables, computers, projectors, labs.		
Ways of assessing of the student (in %) :	**Evaluation in%**	**Final grade**

• Correctness in lectures 0-5% • Activity 0-5% • Seminar paper 0-10% • Test I 0-10% • Laboratory exercises 0-10% • Final exam 0-50% • Participation in exercises 0 - 5% • Work on groups on tasks and case studies 0-5%	91-100	10 (ten)
	81-90	9 (nine)
	71-80	8 (eight)
	61-70	7 (seven)
	51-60	6 (six)
	0-50	5 (five)
Total 100.00 %		

Obligations of student:

Lectures	Exercises
The student should be regular in lectures and especially in exercises, make use of all learning opportunities, use compulsory and broader literature, be active and respect the rules on high school ethics in courtesy and cooperation.	The student should be active in exercises and reflect the readiness and knowledge of initiatives, ideas and demonstrations of knowledge acquired through lectures and experimental exercises.

Activities	Hour/ weeks	Days/Weeks	Total
Lectures	3	15	45
Laboratory exercises	2	15	30
Contacts with teachers / consultations	1	15	15
Practical work	2	15	30
Projects, presentations, etc.	2	15	30
Own study time	2	20	40
Preparation for final exam	2	10	20
Time spent in the assessment (tests, final exam, etc.)	4	0	0
Notice: 1 ECTS credits= 25 hour commitment, e.g. if the subject has 7ECTS credits student must have 150 hours during the semester commitment.		**Total load:**	**210**

Week	Lectures Topic	Hour	Exercises Topic	
1	**Presentation of the syllabus** ▪ Introduction. ▪ Plan and program. ▪ Principles of natural science .	3	**Natural science character** ▪ He division of natural sciences, which belongs to the study. ▪ Labware dish.	2
2	**The international system of units** ▪ Historical development. ▪ Which units belong to the international system of units.	3	**The international system of units** ▪ Which units belong to the international system of units. ▪ Practicing writing a system of international units.	2
3	**Division of natural science and its features** ▪ What does physics, chemistry and biology teach? ▪ Advantages of natural science.	3	**Division of natural science and its features** ▪ The division of natural sciences. ▪ What distinguishes them. ▪ Training	2

4	**Molecular structure of wate** ▪ Water composition. ▪ Water properties. ▪ Water use.	3	**Molecular structure of wate** ▪ Exercises, water formula.	2
5	**Mixture** ▪ What makes them different. ▪ Homogeneous mixtures. ▪ Heterogeneous mixtures.	3	**Mixture** ▪ Examples and exercises with mixtures. ▪ Examples homogeneous mixtures. ▪ Examples Heterogeneous mixtures.	2
6	**First intermedial evaluation**	3	**Training** ▪ Solving tasks ▪ Percentage tasks.	2
7	**Energy** ▪ Where is the energy. ▪ Converting energy		**Energy** ▪ Exercises experimental. ▪ Converting energy	2
8	**Periodic system of elements** ▪ History of the periodic system. ▪ Periodic system composition. ▪ Division of the periodic system.	3	**Periodic system of elements** ▪ Periodic system of elements. ▪ Reading the periodic table of elements. ▪ Tabular display, independent student work.	2
9	**Electricity and magnetism** ▪ The properties of electricity. ▪ The properties of magnetism. ▪ Common features.	3	**Electricity and magnetism** ▪ Experiments based on electricity and magnetism.	2
10	**Atmosphere** ▪ Composition of the atmosphere. ▪ Characteristics of the atmosphere. ▪ The impact of the atmosphere on the living world.	3	**Atmosphere** ▪ Experimental work on the topic of the atmosphere**.**	2
11	**Other intermedial evaluation**	3	**Training** ▪ Solving tasks. ▪ Molarity.	2
12	**Photosynthesis** ▪ Properties of photosynthesis. ▪ The importance of photosynthesis for the living world.	3	**Photosynthesis** ▪ Experimental exercises, photosynthesis.	2

13	**Composition and properties of air** ▪ Composition of air . ▪ Air properties.	3	**Composition and properties of air** ▪ Experimental exercises on the subject of airborne composition	2
14	**Division of materials on metals and non-metals and their properties** ▪ What are the materials. ▪ Material properties. ▪ Application of amateurs.	3	**Division of materials on metals and non-metals and their properties, corrosion** ▪ Exercises on the theme of the materials.	
15	**Protecting the environment we live in** ▪ What is the environment? ▪ What are the meanings of the environment.	3	**Protecting the environment we live in** ▪ Making an environmental poster.	

LITERATURE:

Literature:

Sikirica M.: Sikirica M.: Hemije.,Školska knjiga, Zagreb,2003.

Hemija za 8 udžbenik*.: M. Ranđelović, M. Marković. 2013. Izdavač BIGZ.*

Biologija za 7 udžbenik*.: N.Bukurov, J. Radosavljević, T. Stanojević: Zagreb 2015*

Nedović, B., Ekologija životne sredine, Banja Luka, 1999 .

Fizika za 8 udžbenik. *K.Stevanović, M. Krneta .2012.Izdavač BIGZ.*

NOTICE:

In general, lecture presentations will be made through the PowerPoint system.
For each subject, students must have material available. At the end of each lesson, a particular group of students will engage in a study case or a task based on the subject. Achieved results from a given task, student groups should present and discuss in experimental exercises.

Notice for the student:

Students are required to be regular in the lectures and exercises section.
The contribution of students in the form of conversation and cooperation with students will be evaluated.
Timely arrival in lectures and exercises is mandatory.