

COURSE INFORMATION SHEET

University: Catholic University in Ružomberok	
Faculty: Faculty of Health	
Course code: KVEZ/44V1003W/19	Course title: Biochemistry
Type and range of planned learning activities and teaching methods: Form of instruction: Lecture / Seminar Recommended study range: hours weekly: 1 / 1 hours per semester: 12 / 12 Teaching method: on-site (distance method according to the document Príkaz rektora P-8/2020 since 15. 10. 2020)	
Credits: 2	
Recommended semester/trimester: 1.	
Level of study: I.	
Prerequisites:	
Requirements for passing the course: Conditions for passing the subject: Lectures during the semester. At the final exam can student get maximum 50 points. Subject rating: A – 100%-93% B – 92%-85% C – 84%-77% D – 76%-69% E – 68%-60% FX – 59%- 0%	
Learning outcomes of the course: Learning outcomes: The aim of the subject: To master the basic knowledge in biochemistry, biochemical nature of the disease. Theoretical knowledge: To teach the students to perceive the human body as one part, which biochemical reactions happening at different levels are interrelated. Practical skills: Student get the complete knowledge a skills about biochemical reactions in human body. Public health student will understand the meaning of pre-analytical phase, principles of correct collection of the most common biological materials, possible sources of mistakes. He will acquire with the ways of evaluation of laboratory results, reference rates.	
Course contents: Brief subject scheme: 1. Characteristics of the study field. Biological and toxicological characteristics of chemical elements and its compounds, their way of use in medical practise.. 2. Structure and function of biological membranes, transport of substances. Hydrocarbons and its derivatives. 3. Characteristics and metabolism of carbohydrates. 4. Characteristics and metabolism of lipids. Cholesterol status in human metabolism. 5. Biological oxidations, energy generation, endergonic and exergonic reactions. 6. Structure and function of proteins. Importance and function of nuclear acids. 7. Division and function of hormones. 8. Structure and function of hemoglobin, bilirubin, porphyrins. 9. Division and function of vitamins. 10. Enzymology. Clinical importance of laboratory examination of oncological markers. 11. Preanalytical phase, types of sampling tubes, typy odberových skúmaviek, principles of correct collection of the most common biological materials, possible sources of mistakes. Ways of laboratory results rating, reference rates. 12. Modern diagnostic and analytical methods in clinical biochemistry, using the information technology in clinical biochemistry, certification, accreditation	
Recommended or required literature:	

1. TURECKY,L., RENDEKOVÁ,V.: Lekárska biochémia pre poslucháčov ošetrovateľstva a verejného zdravotníctva, Bratislava, Asklepios , 2003 2. ŠAJTER,V. a kol. : Biofyzika, biochémia a radiológia. Martin, Osveta 2006					
Language of instruction: Slovak					
Notes: The course is taught only in the winter semester and is evaluated only in the relevant examination period of the winter semester of the academic year.					
Course evaluation: Assessed students in total: 14					
A	B	C	D	E	FX
7.14	21.43	28.57	21.43	14.29	7.14
Name of lecturer(s): Mgr. Anton Vaňuga, PhD., PhDr. Angela Almašiová, PhD.					
Last modification: 15.03.2021					
Supervisor(s): doc. MUDr. Eleonóra Fabiánová, PhD., MPH.					