# Information sheet for the course Biochemistry I.

University: Alexander Dubček University of Trenčín

**Faculty:** Faculty of Health Care

Course unit code: Bioch1/d Course unit title: Biochemistry I.

**Type of course unit:** *compulsory* 

### Planned types, learning activities and teaching methods:

Lecture: 2 hours weekly/26 hours per semester of study; full-time

Number of credits: 3

**Recommended semester:** *1<sup>st</sup> semester in the 1<sup>st</sup> year (full-time)* 

**Degree of study:** *I (bachelor)* **Course prerequisites:** *none* 

#### **Assessment methods:**

Written or oral examination (50 score points) - for obtaining the particular grades it is necessary to achieve:

at least 45 score points for the grade A

at least 40 score points for the grade B

at least 35 score points for the grade C

at least 30 score points for the grade D

at least 25 score points for the grade E

## **Learning outcomes of the course unit:**

The student will acquire knowledge by studying the subject of basic concepts and theoretical principles biochemistry in relation to the physico-chemical properties of essential biomolecules and the relationship of their structure and biological activity.

#### **Course contents:**

- 1. Introduction to Biochemistry
- 2. Carbohydrates
- 3. Lipids
- 4. Biomembranes red blood cells, blood groups, ion channels
- 5. Cholesterol, phytosterols
- 6. Amino Acids
- 7. Protein
- 8. Fibrillar proteins (α-keratin, fibroin, collagen, elastin)
- 9. Globular proteins (hemoglobin, myoglobin)
- 10. Enzymes
- 11. Vitamins
- 12. Nucleic acids

### **Recommended of required reading:**

- 1. ZAHRADNÍK, P., KOLLÁROVÁ, M.: 1997. Prehľad chémie 2, Organická chémia a biochémia. Bratislava: SPN, 1997. 325 p. ISBN 80-08-01005-3
- 2. VOET, D. 1990. Biochemie. Praha: Victoria Publishing, 1990. 1325 p. ISBN 80-85605-44-9.

Language: Slovak

Remarks: -

Evaluation history: Number of evaluated students -

Evaluation history of evaluated structus					
a	ь	c	d	e	f
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Lectures: RNDr. Zdenka Krajčovičová, PhD., Mgr. Lucia Dorová

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Supervisor: doc. MUDr. Jana Slobodníková, CSc.