

Subject	BIOCHEMISTRY
Study programme	Threeyears professional studies for graduate physioterapeutic
Code	SF-123
Study year	First
Semester	Second
Total hours	35
Credits	2
Type of subject	Obligatory
Prerequisites	None
Perform by	Cathedra of biochemistry
Responsible professor	Doc. d-r Svetlana Cekovska
Address	Institute of medical and experimental biochemistry Medial faculty, 50 Divizija 6, 1000 Skopje, tel. +389 2 3230 431
Key words	Studies for physioterapeutics, basic subjects, biochemistry
Aims of the subject	Gaining basic knowledge of biochemical mechanism in human organism
Short content	<p>Teoretical lesssons:</p> <p>Biochemistry (25 hours):</p> <ul style="list-style-type: none"> ➤ The main structure of proteins, nucleic acids, lipids and carbohydrates ➤ Properties and functions of: vitamins, enzymes, koenzymes and hormones ➤ Metabolism of proteins, lipids and carbohydrates ➤ Metabolism of water and electrolytes ➤ Acid-base equilibrium maintenance in organism <p>Seminars:</p> <p>Biochemistry (10 hours)</p> <ul style="list-style-type: none"> ➤ Proteins of blood plasma (albumins, globulins, imunoglobulins, blood coagulation factors ➤ Biochemical characteristics of hepar and rens function ➤ Haemoglobin: structure, knowledge, metabolism, determination
Organization	<p>Teoretical education: 25 hours</p> <p>Seminars: 10 hours</p>
Methods of learning	Lectures, seminars
Foresight learning results	<p>Knowledge and understanding:</p> <p>Student will achieve knowledge about basic biochemical mechanism in organism. The student will also achieve knowledge about basic biophysics principles of diagnostic procedures that uses radiation.</p>

	<p>Key skills: Student will be enabled for application of knowledge from biochemistry and biophysics in other medical subjects overcome.</p>										
<p>Specific recommendations for education</p>	<p>It is obligatory for student to follow all provided activities, including participation in continuous checking of knowledge to get a sign.</p> <p>Appraisal of student's activity:</p> <table border="1"> <thead> <tr> <th>Type of activity</th><th>Points</th></tr> </thead> <tbody> <tr> <td>Teoretical education*</td><td>7.5-15</td></tr> <tr> <td>Seminars</td><td>22.5-30</td></tr> <tr> <td>Continous checking-2</td><td>30-55</td></tr> <tr> <td>Total</td><td>60-100</td></tr> </tbody> </table> <p>*presence in eoretical education: 51%-60% - 5 points; 61%-70% - 6 points; 71%-80% - 7 points; 81% -90% -8 points; 91%-100% - 10 points.</p> <p>Prerequisite criteria: Student should visits theoretical lessons and seminars regularly to get a sign and approach to continous checking. Continous checkings are written and are performed after lessons and seminars completion for each part separately. The mark for total exam is formed according the table of marks, according the sum of points achieved from all activities, including continous checkings. The student is obligate to achieve minimum points (60%) from continous checkings, on contrary, should go on complete exam.</p> <p>Complete final exam: The exam is written. It consists from continous checkings of those parts in which students didn't achieve enough points.</p>	Type of activity	Points	Teoretical education*	7.5-15	Seminars	22.5-30	Continous checking-2	30-55	Total	60-100
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<p>Textbooks</p>	<p>Main:</p> <ul style="list-style-type: none"> Chosen chapters from S.Dzhekova-Stojkova and col. Biochemisry, 1999. B. Todorova. Textbook for practical exercises of biochemistry. Medical faculty. 										