



TOTAL per year:												
		20										
Educational objectives (max. 6 items)												
C1. Acquisition of the knowledge on the clinical aspect of modern biochemistry.												
C2. Acquaintance with the key problems of modern medicine not covered in the school textbooks.												
C3. Understanding and the development of ability to analyze the disturbances in metabolic pathways that contribute to the pathogenesis of civilization diseases.												
Education result matrix for module/course in relation to verification methods of the intended education result and the type of class												
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>								
W 01	B.W.15 B.W.16 B.W.19 B.W.26 B.W.11	Student: Knows the metabolic disturbances that lead to the development of obesity, metabolic disorder, diabetes, and atherosclerosis;	presentation, discussion, essey	SE								
W02	B.W.19 B.W.21 B.W.22 B.W.28	Knows and describes the role of glycation in physiology and pathology;										
W03	B.W.20 B.W.17 B.W.28	Knows and understands the role of oxidative stress in the pathogenesis of diseases;										
W04	B.W.15 B.W.17 B.W.21 B.W.26	Knows and understands the role of nitric oxide in the metabolism;										
W05	B.W.20 B.W.17	Knows the complex mechanisms of vitamin action and their role in the pathogenesis and treatment of diseases;										
W06	B.W.15 B.W.16	Knows the metabolic diversity of blood cells and its impact on blood cell function;										
W07	B.W.15 B.W.16	Knows the metabolic distinctiveness of cancer cells;										
W08	B.W.16 E.W.38 E.W.39	Knows the diagnostic usefulness of biochemical markers										
U 01	B.U.3 B.U.7 B.U.8	Student: Is able to establish a cause-and-effect relationship between the disturbances in metabolic pathways and the onset of civilization diseases.	presentation, discussion, essey	SE								
U02	B.U.3 B.U.7	Predicts the effects the disturbances in redox balance have on the macromolecules and their clinical consequences										



U03	B.U.8 B.U.3 B.U.7 B.U.8	Can foresee and describe the metabolic and clinical consequences of hyperglycemia and fructose overload		
U04	B.U.3 B.U.7 B.U.8	Can describe the differences in the metabolism of cancer cells and recognizes their possible application in diagnostics and treatment of cancer disease;		
U05	B.U.3 B.U.7 B.U.8	Predicts the consequences of vitamin deficiency as well as the effects of their excessive intake on metabolism.		
<p>** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .</p>				
<p>Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes: Knowledge: 5 Skills: 4 Social competences:</p>				
Student's amount of work (balance of ECTS points)				
Student's workload (class participation, activity, preparation, etc.)			Student Workload (h)	
1. Contact hours:			20	
2. Student's own work (self-study):			6	
Total student's workload			26	
ECTS points for module/course			1	
Comments				
Content of classes (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)				
Lectures				
Seminars				
<ol style="list-style-type: none"> Biochemistry of diabetes and metabolic syndrome (Chronic metabolic diseases part I). How to get yourself into trouble with corn syrup. Fructose, obesity and uric acid (Chronic metabolic diseases part II). Why do macrophages phagocyte lipoproteins? Homocysteine, LDL, HDL and atherosclerosis. (Chronic metabolic diseases part III) RAGE about your AGE. Advanced glycation end products – a key to constant low grade inflammation. One thing to rule them all and in the darkness bind them - oxidative stress as a molecular background of diseases What is wrong with tumor cells and how to use it against them. Biochemistry of tumors. Healthy or not healthy? Proteins and enzymes as disease markers. Behind the scene: nitric oxide is what Viagra and supplements for body builders have in common. Why bother with drugs when one has vitamins? How the vitamins affect metabolism. Kick the enzyme out of the cell and get yourself a new look. Biochemistry of blood. 				
Practical classes				
Other				
1.				



2.	
3.	
etc. ...	
Basic literature (list according to importance, no more than 3 items)	
1. Thomas M. Devlin „Biochemistry with Clinical Correlations”, Willey-Liss, New York	
Additional literature and other materials (no more than 3 items)	
Scientific literature on the problems addressed on the particular seminars	
Didactic resources requirements (e.g. laboratory, multimedia projector, other...) seminar rooms, multimedia projectors, computers, whiteboards.	
Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Signing up for the seminars before they begin.	
Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades) Students must attend all classes with regard to § 12 section 3 of the University Regulations. At the end of the course, the students present selected topics in the form of a presentation or an essay	
Grade:	Criteria (only for courses/modules ending with an examination)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	

Name and address of module/course teaching unit, contact: telephone and e-mail address

Department of Medical Biochemistry, Chałubińskiego 10, 50-368 Wrocław
Secretarial office: e-mail: w1-4@umed.wroc.pl; phone: 784-13-70

Coordinator / Person responsible for module/course, contact: telephone and e-mail address

Dr hab Małgorzata Krzystek-Korpacka; phone: 784-13-95; malgorzata.krzystek-korpacka@umed.wroc.pl



List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Teachers	Degree, field of science, profession	Form of classes
Małgorzata Krzystek-Korpaczka	Doctor hab of Medical Sciences, Biochemist, adjunct	seminars
Ireneusz Ceremuga	Doctor of Medical Sciences, Biochemist, adjunct	seminars
Jerzy Wiśniewski	Doctor of Medical Sciences, Biochemist, adjunct	seminars

Date of Syllabus development

Syllabus developed by

29.06.2017

Małgorzata Krzystek-Korpaczka

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu
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kierownik

prof. dr hab. Andrzej Gamian

Signature of Faculty Dean

Wrocław Medical University
FACULTY OF ENGLISH

VICE-DEAN FOR STUDIES IN ENGLISH

Prof. Andrzej Hendrich, PhD

