



Syllabus 2019/2020														
Description of the course														
Module/Course	The new trends in laboratory diagnostic										Group of detailed education results			
											Group code E	Group name Clinical non-interventional sciences		
Faculty	Medicine													
Major	medicine													
Specialties	Not applicable													
Level of studies	Uniform magister studies X * 1 <sup>st</sup> degree studies <input type="checkbox"/> 2 <sup>nd</sup> degree studies <input type="checkbox"/> 3 <sup>rd</sup> degree studies <input type="checkbox"/> postgraduate studies <input type="checkbox"/>													
Form of studies	X full-time <input type="checkbox"/> part-time													
Year of studies	III						Semester	<input type="checkbox"/> Winter x Summer						
Type of course	<input type="checkbox"/> obligatory <input type="checkbox"/> limited choice x free choice / elective													
Course	<input type="checkbox"/> major x basic													
Language of instruction	<input type="checkbox"/> Polish X English <input type="checkbox"/> other													
* mark <input type="checkbox"/> with an X														
Number of hours														
Form of education														
Unit teaching the course	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
<b>Winter Semester</b>														
<b>Summer Semester</b>														
Department of Medical Biochemistry		20												
<b>TOTAL per year:</b>														



	20													

**Educational objectives (max. 6 items)**

- C1. Acquisition of the knowledge on principles of laboratory diagnostics.
- C2. Acquaintance with the key problems of modern medicine not covered in the school textbooks.
- C3. Understanding the basic rules underlying the design of differential diagnosis with respect to chosen common diseases.
- C4. Familiarity with the analysis and interpretation of the results of diagnostic tests.

**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>
<b>K 01</b>	E.W3 d, e, f, g	Knows the principles of diagnosis of the most common internal diseases in children (with the application of appropriate laboratory tests): anemias, haemorrhagic diatheses, cancer diseases, vomiting, diarrhea, gastrointestinal bleeding, ulcers, hepatobiliary tract diseases, urinary tract infections, nephrolithiasis, kidney failure, nephritis, growth disturbances, thyroid and parathyroid glands diseases, adrenal gland diseases, diabetes, obesity	Oral standardized tests checking the knowledge at the level of understanding, analysis, synthesis, problem solving.  Written tests in the form of essays, reports.	SE
<b>K 02</b>	E.W7 a, b, c, d, e, f	Knows the principles of diagnosis of the most common internal diseases in adults (with the application of appropriate laboratory tests), including: cardiovascular diseases (e.g. myocardial ischemia, cardiac insufficiency), respiratory failure, gastrointestinal diseases, including hepatobiliary system dysfunction, endocrine diseases, including hypothalamus, pituitary, thyroid and parathyroid gland pathologies, dyslipidemia, metabolic syndrome, diabetes, urinary tract diseases, including kidney infection, hematopoietic system diseases, including haemorrhagic diathesis, acid-base balance disturbances, including acidosis, alkalosis		SE



<b>K03</b>	E.W.24	Knows the principles of the early diagnosis and screening tests in cancer diseases		SE
<b>K04</b>	E.W38	Knows theoretical and practical basis of laboratory diagnostics		SE
<b>K05</b>	E.W. 39	Knows and understands the options and constraints of laboratory tests in emergency		SE
<b>K06</b>	E.W.40	Knows indications for the administration of monitoring therapy.		SE
<b>S 01</b>	E.U12, 14, 15, 24	Performs differential diagnosis of the most common diseases in adults and children Recognizes life-threatening states (on the basis of laboratory tests). Recognizes the state characteristic for alcohol and drugs of abuse intake (on the basis of laboratory tests results). Interprets the results of laboratory tests and identifies the reasons of deviations.	Direct observation of student's activity and his/her social communication skills including in a multicultural group.	SE

\*\* 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 .

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: 5

**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	1,0
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**

1. Not applicable

**Seminars**

1. Laboratory diagnostic of civilization diseases.

2. The usefulness of laboratory data in the differential diagnosis of hemostatic failure.

3. The pros and cons of running a marathon - in the light of diagnostic tests.

<p>4. Laboratory diagnostics in pregnancy. Age-dependent characteristics of laboratory tests.</p> <p>5. The differential diagnosis of lipid metabolism disorders.</p> <p>6. Plasma proteins and laboratory diagnosis of inflammation and infectious diseases.</p> <p>7. Laboratory monitoring of dietary treatment.</p> <p>8. The usefulness of laboratory data in the differential diagnosis of anemia.</p> <p>9. The evaluation of water-electrolyte and acid-base balance in the clinical practice.</p> <p>10. Laboratory tests in the diagnosis of hyperglycemia and hypoglycemia.</p>	
<p>Practical classes</p> <p>1. Not applicable.</p>	
<p>Other</p> <p>1. Consultations.</p>	
<p><b>Basic literature</b> (list according to importance, no more than 3 items)</p> <p>1. Carl A. Burtis, Edward A. Ashwood "Tietz Fundamentals of Clinical Chemistry"</p> <p>2. Thomas M. Devlin „Biochemistry with Clinical Correlations”, Willey-Liss, New York</p> <p><b>Additional literature and other materials</b> (no more than 3 items)</p> <p>1. Scientific literature on the problems addressed on the particular seminars</p>	
<p>Didactic resources requirements (e.g. laboratory, multimedia projector, other...)</p> <p>1. Seminar rooms.</p> <p>2. Multimedia projectors, computers.</p>	
<p>Preliminary conditions (minimum requirements to be met by the student before starting the module/course)</p> <p>Matched material in the field of physiology and biochemistry at the level required for students of the Faculty of Medicine</p>	
<p>Conditions to receive credit for the course (specify the form, criteria 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).</p> <p>Each absence must be made up, including rector's days or dean's hours in manner indicated by a person supervising the classes in agreement with a person responsible for the subject.</p>	
<p><b>Students must attend all classes. During the classes the students will present selected topics in the form of a individual or in pairs multimedia presentation.</b></p>	
<b>Grade:</b>	<b>Criteria for course</b>
Very Good (5.0)	actively participation in seminars and additionally the preparation of individual multimedia presentation
Good Plus (4.5)	actively participation in seminars and additionally the preparation of individual multimedia presentation
Good (4.0)	actively participation in seminars and additionally the preparation in pairs multimedia presentation
Satisfactory Plus (3.5)	actively participation in seminars
Satisfactory (3.0)	actively participation in seminars
<b>Grade:</b>	<b>Criteria for exam (if applicable)</b>
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	



Satisfactory Plus (3.5)	
Satisfactory (3.0)	

<b>Name of unit teaching course:</b>	<b>Department of Medical Biochemistry</b>
Address	Chałubińskiego 10, 50-368 Wrocław
Phone	71 784 1370
E-mail	wl-4@umed.wroc.pl

<b>Person responsible for course:</b>	<b>dr n.med. Iwona Bednarz-Misa</b>
Phone	71 784 1377
E-mail	iwona.bednarz-misa@umed.wroc.pl

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Iwona Bednarz-Misa	Doctor of Medical Sciences, Specialty of Laboratory Diagnostician	medical sciences and health sciences	academic teacher-research and teaching worker, laboratory diagnostician, biochemist	SE
Izabela Berdowska	Doctor of Medical Sciences	medical sciences and health sciences	academic teacher-research and teaching worker, biochemist	SE
Agnieszka Bronowicka-Szydełko	Doctor of Medical Sciences, Laboratory Diagnostician	medical sciences and health sciences	academic teacher-research and teaching worker, laboratory diagnostician, biochemist	SE
Ireneusz Ceremuga	Doctor of Medical Sciences, Laboratory Diagnostician	medical sciences and health sciences	academic teacher-research and teaching worker, laboratory diagnostician, biochemist	SE
Aleksandra Kuzan	Doctor of Medical Sciences	medical sciences and health sciences	academic teacher-research and teaching worker, biochemist	SE
Małgorzata Matusiewicz	Doctor of Medical Sciences	medical sciences and health sciences	academic teacher-research and teaching worker, biochemist	SE
Magdalena Mierzchała-Pasierb	Doctor of Medical Sciences	medical sciences and health sciences	academic teacher-research and teaching worker,	SE



			biochemist	
Paweł Serek	Doctor of Medical Sciences	medical sciences and health sciences	academic teacher-research and teaching worker, laboratory diagnostician	SE

**Date of Syllabus development**

10.07.2019

**Syllabus developed by**

dr n.med. Iwona Bednarz-Misa

**Signature of Head of teaching unit**

Signature of Faculty Dean

Wrocław Medical University  
FACULTY OF MEDICINE  
VICE-DEAN FOR STUDIES IN ENGLISH  
Prof. Andrzej Gantian

Uniwersytet Medyczny we Wrocławiu  
KATEDRA I ZAKŁAD BIOCHEMII LEKARSKIEJ  
kierownik  
prof. dr hab. Andrzej Gantian