



Syllabus 2018/2019														
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 st degree studies <input type="checkbox"/> 2 nd degree studies <input type="checkbox"/> 3 rd degree studies <input type="checkbox"/> postgraduate studies <input type="checkbox"/>													
Form of studies	X full-time X 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)
Winter Semester														
Summer Semester														
Department of Medical Biochemistry		20												
TOTAL per year:														



	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>
K 01	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	presentation, discussion, essey	SE
K 02	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 dideases, 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	presentation, discussion, essey	SE



K03	E.W.24	Knows the principles of the early diagnosis and screening tests in cancer diseases	presentation, discussion, essey	SE
K04	E.W38	Knows theoretical and practical basis of laboratory diagnostics	presentation, discussion, essey	SE
K05	E.W. 39	Knows and understands the options and constraints of laboratory tests in emergency	presentation, discussion, essey	SE
K06	E.W.40	Knows indications for the administration of monitoring therapy.	presentation, discussion, essey	SE
S 01	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.	report	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.
- 2.
- 3.

Seminars

1. Pathobiochemical backgrounds 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.
4. Laboratory diagnostics in pregnancy. Age-dependent characteristics of laboratory tests.
5. The differential diagnosis of lipid metabolism disorders.
6. Plasma proteins and laboratory diagnosis of inflammation and infectious diseases.
7. Laboratory monitoring of dietary treatment.
8. The usefulness of laboratory data in the differential diagnosis of anemia.
9. The evaluation of water-electrolyte and acid-base balance in the clinical practice.
10. Laboratory tests in the diagnosis of hyperglycemia and hypoglycemia.

Practical classes

- 1.
- 2.
- 3.

Other

- 1.
- 2.
- 3.

etc. ...

Basic literature (list according to importance, no more than 3 items)

1. Carl A. Burtis, Edward A. Ashwood "Tietz Fundamentals of Clinical Chemistry"
2. Thomas M. Devlin „Biochemistry with Clinical Correlations”, Willey-Liss, New York

Additional literature and other materials (no more than 3 items)

1. Scientific literature on the problems addressed on the particular seminars
- 2.
- 3.

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)

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).

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.

Students must attend all classes. At the end of the course, the students present selected topics in the form of a individual or in pairs multimedia presentation.

Grade:	Criteria for course
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



Grade:	Criteria for exam (if applicable)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	

Name of unit teaching course:	Department of Medical Biochemistry
Address	Chałubińskiego 10, 50-368 Wrocław
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Person responsible for course:	dr Iwona Bednarz-Misa
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	Medicine biology	Biochemist, adjunct	SE
Paweł Serek	Doctor of Medical Sciences	Medicine biology	Biochemist, adjunct	SE
Ireneusz Ceremuga	Doctor of Medical Sciences, Laboratory Diagnostician	Medicine biology	Biochemist, adjunct	SE
Izabela Berdowska	Doctor of Medical Sciences	Medicine biology	Biochemist, adjunct	SE
Agnieszka Bronowicka-Szydełko	Doctor of Medical Sciences, Laboratory Diagnostician	Medicine biology	Biochemist, adjunct	SE
Małgorzata Matusiewicz	Doctor of Medical Sciences	Medicine biology	Biochemist, adjunct	SE
Aleksandra Kuzan	Doctor of Medical Sciences	Medicine biology	Biochemist, adjunct	SE
Magdalena Mierzchała-Pasierb	Doctor of Medical Sciences	Medicine biology	Biochemist, adjunct	SE



Date of Syllabus development

12.07.2018

Syllabus developed by

dr n.med. Iwona Bednarz-Misa

Signature of Faculty Dean

Wrocław Medical University
FACULTY OF MEDICINE
VICE DEAN FOR STUDIES IN ENGLISH
Prof. Andrzej Hendrich, PhD

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu
KATEDRA I ZAKŁAD BIOCHEMII LEKARSKIEJ
kierownik

prof. dr hab. Andrzej Gamian