



Distance learning (asynchronous)																			
Summer Semester																			
Direct (contact) education																			
Online learning (synchronous)																			
Online learning (asynchronous)																			
TOTAL per year: 40																			
Direct (contact) education										15									
Online learning (synchronous)	10									15									
Online learning (asynchronous)																			
Educational objectives (max. 6 items)																			
<p>C1. Introduction to clinically important microorganisms causing systemic infections.</p> <p>C2. Learning students about basic diagnostic procedures: proper sampling and transport of clinical samples, isolation and identification of microorganisms.</p> <p>C3. Learning students about general antimicrobial treatment of systemic infections including bacterial resistance to antimicrobials.</p> <p>C4. Preparing students how to interpret correctly microbiological tests results and antimicrobial susceptibility testing results.</p> <p>C5. Learning students about epidemiology of systemic infectious diseases (modes of transmission of hospital-acquired and community-acquired systemic infections) and how to prevent spreading of bacteria in hospital wards.</p>																			
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.1	C.K12	Graduate is able to name and classify pathogenic microorganisms causing human's systemic infections; knows the normal microflora and its influence on human's endogenous and iatrogenic infections.	Oral response, class tests, practical exam, final exam	L, LC															
K.2	C.K18	Graduate knows and understands pathomechanism of iatrogenic infections, ways of their transmission, main clinical symptoms, and prevention.	Oral response, class tests, practical exam, final exam	L, LC															
K.3	C.K19	Graduate knows and understands	Oral response, class	L, LC															



		diagnostic procedures of bacterial, viral and fungal systemic infections, the biological material sampling, transport to the laboratory, and is able to interpret microbiological testing results.	tests, practical exam, final exam	
K.4	C.K34	Graduate is able to characterize clinical picture of most common systemic infections and etiologic agents responsible for these infections.	Oral response, class tests, practical exam, final exam	L, LC
K.5	C.K40	Graduate understands the problem of drug resistance, including multi-drug resistance and its importance in treatment of systemic infections	Oral response, class tests, practical exam, final exam	L, LC
S1.	C.S6	Graduate uses the basic methods to detect pathogenic microbiological agents.	Evaluation of self-made culture of biological material	L, LC
S2.	C.S9	Student is able to prepare slides and recognize bacteria under microscope.	Evaluation of the performance and interpretation of microscopic preparations in the immersion system	L, LC
S3.	C.S10	Graduate is able interpret microbiological testing results.	Assessment of individual interpretation of test results on the basis of laboratory cultures	L, LC
S4.	C.S15	Student is able propose rationale antimicrobial therapy in systemic infections .	Assessment of student individual ability to interpret antimicrobial susceptibilities tests of selected pathogens and resistance mechanisms	L, LC



** 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: 4

Skills: 2

Student's amount of work (balance of ECTS points)

Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
1. Contact hours:	15
2. Online learning hours (e-learning):	25
3. Student's own work (self-study):	63
Total student's workload	103
ECTS points for module/course	4,5
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 (5 weeks x 90 min)

1. Sexually transmitted diseases and urinary tract infections.
2. Gastrointestinal tract infections and food poisonings.
3. Wound and soft tissue infections.
4. Upper and lower respiratory tract infections .
5. Blood infections and infections of the central nervous system.

Practical classes (10 weeks x 135 min)

1. Sexually transmitted diseases and urinary tract infections (online)
2. Gastrointestinal tract infections and wound and soft tissue infections(online)
3. Upper and lower respiratory tract infections (online)
4. Blood and central nervous system infections (online)
5. Natural flora and opportunistic infections(online)
6. Sexually transmitted diseases and urinary tract infections (laboratory session).
7. Gastrointestinal tract infections and wound and soft tissue infections (laboratory session).
8. Upper and lower respiratory tract infections (laboratory session).
9. Blood and central nervous system infections (laboratory session).
10. Practical exam(laboratory session).

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

1. Mim's Medical Microbiology and Immunology 6th ed. Goering R., Dockrell H., Zuckerman, Chiodini
2. Medical Microbiology. 8th ed. Murray P.R., Tenover F.C., Tenover K.C., Tenover K.S.

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

1. Medical Microbiology. 4th ed. Baron S.
2. Medical Microbiology. 2nd ed. Sherris J.C.

Didactic resources requirements (e.g. laboratory, multimedia projector, other...)

Microbial laboratory with full equipment, multimedia projector, computer with camera.



Preliminary conditions (minimum requirements to be met by the student before starting the module/course)

Credit of the course: Microbiology (1)

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)

Each absence must be made up, including rector's days or dean's hours.

1. Attendance on classes and lectures - according to the study regulations
2. Passed all class tests.
3. Practical exam - the condition for admission to the practical test is the passing of all class tests and credit from all classes
4. Final exam is oral - the conditions for admission to the final exam include: passed all classes and passed practical exam. Pass criteria for the exam: the correct answer to two from four questions (25% each question)

Grade:	Criteria (examination evaluation criteria)
very good - good	100% - 75%
good - satisfactory	75% - 50%
unsatisfactory	< 49%
Unit realizing the subject	University of Medicine, Department of Microbiology
Unit address	Chałubińskiego 4 Street, 50 - 346 Wrocław
Telephone	Tel. /071/ 784-12-75; Fax: /071/ 784-01-17
E-Mail	wl-13@am.wroc.pl

Person responsible for module	prof. dr hab. Beata Sobieszczęńska, prof. nadzw.
Coordinator	
Telephone	Tel. 784 - 1 - 08
E-Mail	beata.sobieszczanska@umed.wroc.pl

List of persons conducting specific classes				
Full name	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Beata Sobieszczęńska	Prof. dr hab. n. Med. professor	microbiology	specialist in microbiology	lectures, classes
Jolanta Rusiecka-Ziółkowska	dr med. lek. med.	microbiology ophthalmology	specialist in microbiology	classes



	assistant leader		specialist in ophthalmology	
Urszula Walczuk	dr med. assistant leader	microbiology biotechnology	specialist in microbiology	lectures, classes
Paweł Krzyżek	mgr assistant	microbiology	microbiology Ph.D student	classes

Date of Syllabus development

01.10.2020

Syllabus developed by

dr n. med. Urszula Walczuk

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu
KATEDRA I ZAKŁAD MIKROBIOLOGII
kierownik

prof. dr hab. Grażyna Gościński

Signature of Faculty Dean

Wrocław Medical University
Faculty of Medicine
Vice-Dean

prof. Beata S.