





TOTAL per year: 39				
<b>Educational objectives (max. 6 items)</b>				
C1. Independent planning of diagnostic procedures in case of parasitic infection.				
C2. Independent preparation of samples for molecular diagnostics (DNA isolation).				
C3. PCR designing and conducting.				
C4. Analysis of achieved results.				
C5. Independent preparing of microscopic slides.				
C6. Knowledge of the principles of parasitic infections prophylaxis.				
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	A 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	C.W.13	- student knows the epidemiology of parasitic infections taking into account their geographical extent; presents basic principles of prophylaxis of parasitic infections;	oral answer	LC
K 02	C.W.15	- student knows forms infective for humans or developmental stages of chosen protists and helminths taking into account their geographical extent;	oral answer	LC
K 03	C.W.16	- student discusses the principles of functioning of the parasite-host system and knows the basic symptoms of disease caused by human parasites;	oral answer	LC
K 04	C.W.18	- student knows and understands the basics of microbiological and parasitological diagnosis;	oral answer	LC
K 05	E.W.37	- student knows the types of biological materials used in laboratory diagnostics and the principles of collecting materials for testing	oral answer	LC
K 06	E.W.38	- student knows the theoretical and practical basis of laboratory diagnostics;	oral answer	LC
S 01	A.U.1	- student uses an optical microscope, with immersion;	oral answer	LC
S 02	B.U.9	- student uses basic laboratory techniques such as protein and nucleic acid electrophoresis;	performs experiment, report	LC



S 03	B.U.11	- student uses internet databases and knows how to find needed information by using available tools;	report	LC
S 04	B.U.14	- student plans and performs simple tasks, interprets results and draws conclusions (performs DNA isolation, PCR and analyses results)	performs experiment, report	LC
S05	C.U.7	- student recognizes the most common human parasites based on their morphology, life cycles and disease symptoms	microscopy; oral answer	LC
S 06	C.U.9	- student plans and designs diagnostic procedures while suspected parasitic infections; - student prepares microscopic slides;	oral answer, preparing of specimens, report	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: 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:	30
2. Student's own work (self-study):	9
Total student's workload	39
ECTS points for module/course	1.5
Comments	

**The 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 ----

**Practical classes**

**Principles for the diagnosis of parasitic infections.**

- In which cases parasite infection should be considered;
- correct patient interview;

**Basis of molecular diagnostics.**

- Knowing basic types of molecular diagnostic methods;
- Principles of biological material management for molecular parasitological diagnosis;
- Planning of diagnostic procedures in case of suspected parasitic infection;
- Methodology of DNA isolation;
- PCR design;



<p><b>Use of molecular diagnostic methods in the diagnosis of parasitic infections.</b></p> <ul style="list-style-type: none"> <li>- DNA isolation from various materials (stool, urine, blood, CFS, sputum, biopsy);</li> <li>- PCR;</li> </ul> <p><b>Use of molecular diagnostic methods in the diagnosis of parasitic infections, continued.</b></p> <ul style="list-style-type: none"> <li>- Electrophoresis of obtained amplification products;</li> <li>- Visualization and interpretation of results;</li> </ul> <p><b>Application of microscopy in the diagnosis of parasitic infections.</b></p> <ul style="list-style-type: none"> <li>- Diagnostic methods: direct (fresh stool examination – fresh preparations in saline or tinted with Lugol or malachite green; decantation and flotation) and indirect (stained smears, immunological, fluorescent, molecular methods); types of preservatives;</li> <li>- Interpretation of laboratory tests results;</li> </ul> <p><b>Prophylaxis of parasitic infections.</b></p> <p>The most important principles of parasitic infections prophylaxis;</p>													
<p><b>Other —</b></p>													
<p><b>Basic literature</b> (list according to importance, no more than 3 items)</p> <p>1. Bogitsh BJ, Cheng TC, Human parasitology, Academic Press, 1998 (2<sup>nd</sup> edition)</p>													
<p><b>Didactic resources requirements</b> (e.g. laboratory, multimedia projector, other...)</p> <p>Laboratory equipped with microscopes, thermal cyclers, small laboratory equipment, reagents for DNA isolation and PCR. Room equipped with multimedia.</p>													
<p><b>Preliminary conditions</b> (minimum requirements to be met by the student before starting the module/course)</p> <p>Knowledge in the field of parasitology, microscopy, molecular basis of genetics gained in the first year of studies under the subject "molecular biology".</p>													
<p><b>Conditions to receive credit for the course</b> (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)</p> <p><b>Passing without assessment</b> - presence on exercises; independent design and conduct of diagnostic procedures in case of suspected parasitic infection (molecular and microscopic methods); correct interpretation of the results; conduct interview with patients and propose prophylaxis of parasitic infections;</p>													
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<b>Name of unit teaching course:</b>	Department of Biology and Medical Parasitology
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<b>E-mail</b>	<a href="mailto:malgorzata.pekalska-cisek@umed.wroc.pl">malgorzata.pekalska-cisek@umed.wroc.pl</a>

<b>Person responsible for course:</b>	Dr Marta Kicia
<b>Phone</b>	71 784 15 22
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<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>
Marta Kicia	dr	medical biology, biotechnology	academic teacher	LC
Przemysław Leszczyński	mgr	medical biology, biotechnology	academic teacher	LC
Magdalena Szydłowicz	dr	medical biology, biotechnology	academic teacher	LC

Date of Syllabus development

28.06.2019

Syllabus developed by

Dr Dorota Tichaczek-Goska/Dr Marta Kicia

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu  
KATEDRA / ZAKŁAD BIOLOGII  
I PARAZYTOLOGII LEKARSKIEJ  
.....  
kierownik

prof. dr hab. Andrzej Hendrich

Signature of Faculty Dean

Wrocław Medical University  
FACULTY OF MEDICINE  
VICE-DEAN FOR STUDIES IN ENGLISH

.....  
Prof. Andrzej Hendrich, Ph.D.