

1.	<b>Subject</b>	<b>MICROBIOLOGY AND PARASITOLOGY 2</b>			
2.	<b>Code</b>	OM 312			
3.	<b>Study Program</b>	General Medicine			
4.	<b>Organizing Institution ( Unit, Institute, Chair, Department)</b>	UKIM-Faculty of Medicine Cathedra of Microbiology and Parasitology			
5.	<b>Educational degree (first or second cycle)</b>	Integrated cycle			
6.	<b>Study year/semester</b>	III year / V semester	5.	Number of ECTS credits	6
8.	<b>Responsible teacher</b>	Head of department/cathedra Prof. Dr. Zaklina Cekovska  Teaching is conducted by following members of the Cathedra of Microbiology and Parasitology			
9.	<b>Preconditions:</b>	Completed course in Medical Microbiology 2			
10.	<b>Course objectives (competencies):</b>	<p><b>The objectives of the course enables students to acquire:</b></p> <ul style="list-style-type: none"> <li>• More specific knowledge of medical important bacteria;</li> <li>• Solid knowledge of important medical viruses;</li> <li>• The necessary knowledge about medical important fungi;</li> <li>• More specific knowledge specific knowledge of medical important parasites.</li> </ul>			

11.	<p><b>Course content:</b></p> <p><b>Theory:</b></p> <p><b>Medical bacteriology</b></p> <ul style="list-style-type: none"> <li>• Classification of medical important bacteria</li> <li>• Gram positive cocci • Gram negative cocci</li> <li>• Gram-positive bacilli • Gram negative bacilli</li> <li>• Intracellular bacteria</li> <li>• Spiral bacteria</li> </ul> <p><b>Medical virology</b></p> <ul style="list-style-type: none"> <li>• Classification and nomenclature of viruses</li> <li>• RNA viruses</li> <li>• DNA viruses</li> </ul> <p><b>Medical mycology</b></p> <ul style="list-style-type: none"> <li>• Triggers superficial mycoses</li> <li>• Triggers systemic mycoses</li> </ul> <p><b>Medical Parasitology</b></p> <ul style="list-style-type: none"> <li>• Medical significant protozoa</li> <li>• Medical significant helminths</li> </ul> <p><b>Intra-hospital infections</b></p>
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	<p><b>Diagnosis of microbial infections in different systems</b></p> <p><b>Practical classes:</b></p> <ul style="list-style-type: none"> <li>• Microbiological diagnosis of infections caused by pyogenic cocci;</li> <li>• Microbiological diagnosis of infections involving the respiratory tract;</li> <li>• Microbiological diagnosis of infections involving the urogenital tract;</li> <li>• Microbiological diagnosis of infections involving the gastrointestinal tract;</li> <li>• Microbiological diagnosis of infections involving the central nervous system;</li> <li>• Microbiological diagnosis of intra-hospital infections;</li> <li>• Microbiological diagnosis of anaerobic infections;</li> <li>• Laboratory diagnosis of infections caused by fungi, protozoa and helminthes.</li> </ul>
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12.	<b>Methods of studying:</b> <b>Interactive teaching, practical course, seminars</b>			
13.	<b>Total number of hours:</b>		130 hours	
14.	<b>Distribution of available time:</b>			
15.	<b>Type of educational activity</b>	15.1	Lectures-theoretical course	45 hours teaching
		15.2	Practical (laboratory, clinical), seminars, team work	30 hours practical course/seminars
		16.1	Home study	60 hours
17.	<b>Assessment of knowledge:</b>			<b>points</b>
17.1	Tests			min. - max
		1. Continuous tests ✦ Selected parts from theoretical microbiology		points 12 - 20
		2. Continuous test from first practical part (first half) plus theoretical second part		points 21 - 35
	Final exam	Oral part	points	min.- max. 18 - 29
17.2	Seminar work/project (presentation: written and oral)	Seminar work	points	min. – max. 0 - 3

	17.3	Active participation		min.- max.
			Theoretical course	points 1 - 3
			Practical course	points 8– 10
			Attendance at theoretical course	
			51% - 60% =	1 point
			61% - 91% =	2 points
			91% - 100% =	3 points
			Practical course (24 practical course of 3 hours)	
18.	<b>Knowledge assessment criteria:</b> (points/grade)		to 59 points	5 (five) F
			from 60 to 68 points	6 (six) E
			from 69 to 76 points	7 (seven) D
			from 77 to 84 points	8 (eight) C
			from 85 to 92 points	9 (nine) B
			from 93 to 100 points	10 (ten) A

19.	<b>Criteria for obtaining a signature and taking the final exam</b>	<b>Conditional criteria for assessment of knowledge:</b>  <b>Knowledge assessment criteria:</b> 4. Students need 70% from a total points (from presence of theoretical and practice work) should receive approval for their attendance (sign document). 5. In order to take the final exam, the student has to win a minimum of 60% of the two continual assessment tests. 6. The minimum passing score for the final examination is 60% out of the total points.				
20.	<b>Language of the course</b>	Macedonian				
21.	<b>Method for evaluation of the quality of education</b>	Anonymous evaluation by students on the subject, teaching staff, and associates participating in the teaching.				
22.	Literature:					
	22.1	Mandatory literature				
		No.	Author	Title	Publisher	Year

1	Jawetz E, Melnik II, Adelberg EA. <hr/> Grinvud D.	Medical Micioborlogy <hr/> Medical Microbiology		21 th ed., 2004 <hr/> 17-th edition, 2006
2	Nikola Panovski and ass.	Special Microbiology	University "Ss. Cyril and Methodius" Medical faculty	2011
3	Milena Petrovska and ass.	Practical Microbiology	University "Ss. Cyril and Methodius" Medical faculty	5 th ed., 2010