

1.	Subject	EPIDEMIOLOGY AND INFECTOLOGY			
2.	Code	MLD – 319			
3.	Study program:	Three-year professional studies of medical laboratory diagnostics			
4.	Conducted by	UKIM – Medical faculty Department of Epidemiology and Biostatistics with Medical Informatics Department of Infectology			
5.	Degree of education (first or second cycle)	First cycle			
6.	Academic year/semester	III/V	7.	Credits	4
8.	Professor	<p>Head of the Department of Epidemiology and Biostatistics with Medical Informatics: Prof. d-r Vesna Velikj Stefanovska The lessons are held by the following members of the Department of Epidemiology and Biostatistics with Medical Informatics: Prof. D-r Dragan Danilovski Prof. d-r Biljana Taushanova Prof. d-r Vesna Velikj Stefanovska Prof. d-r Rozalinda Isjanovska Prof. d-r Beti Zafirova Ivanovska Research associate d-r Irina Pavlovska</p> <p>Head of the Department of Infectology: Prof. d-r Irena Kondova Topuzovska The lessons are held by the following members of the Department of Infectology: Prof. d-r Zvonko Milenkovic Prof. d-r Irena Kondova Topuzovska Prof. d-r Snezana Stojkovska Prof. d-r Mile Bosilkovski Ass. Prof. D-r Krsto Grozdanovski Ass. Prof. d-r Marija Cvetanovska</p>			
9.	Prerequisite	Fulfilled condition for enrollment into second year			
10.	Goals	<p>Epidemiology</p> <ul style="list-style-type: none"> • Acquiring theoretical and practical knowledge of the epidemiology field which would enable recognition and resolution of epidemiological problems and challenges as well as their prevention. • Acquiring skills which will use mortality and morbidity indicators to analyze conditions of specific diseases or groups of diseases, including the etiological factors of their occurrence. • Recognizing the role and meaning of the levels of prevention and their application in practice. • Acquiring knowledge of the epidemiological methods and their implementation in scientific research. • Acquiring knowledge of epidemiology of infectious and noninfectious diseases and conditions. • Evaluating the population epidemiological situation for the diseases which are the greatest burden on the society • Active use of the gained knowledge in protection and promotion of personal health and health of the family members • Active participation in planning and applying the epidemiological research 			

		<p>as a member of a research team</p> <p>Infectology</p> <ul style="list-style-type: none"> • Gaining theoretical and practical knowledge of the infectology field which will provide recognition and diagnosis of infectious diseases, their treatment and prevention of consequences • Learn the general principles of the diagnostic protocol of infectious diseases • Gain ability to use the gained theoretical knowledge for diagnosis of infectious diseases into practice • Active use of the gained knowledge in protection and promotion of personal health and health of a family • Active participation in planning and implementation of epidemiological research as a member of a research team
11.	Content summary:	<p>Epidemiology:</p> <p>Theoretical lessons:</p> <ul style="list-style-type: none"> • Basics of epidemiology – introduction, goals, history, contemporary epidemiology; • Epidemiological methods • Disease indicators, health deterioration and mortality • Epidemiological process and epidemiological models • Occurrence of infections and infectious diseases • Preventative measures and eradication of diseases and health deterioration • Epidemiological supervision • Immunization, seroprophylaxis and immunoprophylaxis • Elimination and eradication of infectious diseases • Disinfection, disinsectization and deratization • Health education • Intrahospital infections • Epidemiological doctrines of military conflicts and states of emergency • Epidemiological characteristics of intestinal, naturally occurring, respiratory, contact transmission infectious diseases • Epidemiological characteristics of zoonosis and helminthiasis • Epidemiological characteristics of chronic noninfectious diseases and health damage <p>Practical lessons:</p> <ul style="list-style-type: none"> • Application of the epidemiological methods in practice • Processing various types of epidemiological samples – solving created epidemiological cases • Getting acquainted with statutes and laws about epidemiology • Exercises for using the gained theoretical knowledge of the diseases in practice <p>Infectology – theoretical lessons</p> <ul style="list-style-type: none"> • Etiology, pathogenesis and clinical characteristics of the infectious diseases • Diagnostic protocols • Antimicrobial therapy • Immunoprophylaxis • Nosocomial infections, sepsis and septic shock

	<ul style="list-style-type: none"> • Streptococcal and staphylococcal infections • Infections of the GIT: salmonellosis, dysentery, amebiasis, food poisoning, diarrhea (travel, post-antibiotic, in patient with immunodeficiencies), cholera, viral enterocolitis • Infections of the RT: pneumonias, legionellosis, pertussis • Infections of the CNS: meningitis that is serious and with pus, meningoencephalitis and encephalitis • Diphtheria, tetanus, botulism • Anthrax, plague, tularemia, toxoplasmosis • Brucellosis • Malaria • Infections with: spirochetes, rickettsia, chlamydia, mycoplasma • Viral infections (variola, varicella, morbilli, rubella, influenza, adenoviruses, parotitis, rabies, polio, enteroviruses, hepatitis viruses, mononucleosis, herpes virus, hemorrhagic fever, HIV) • Systemic fungal infections <p>Practical lessons:</p> <ul style="list-style-type: none"> • Application of the infectology diagnostic principles in practice • Processing patients with different syndromes in infectology • Getting acquainted with laboratory methods of diagnosis of infectious diseases • Exercises for using the gained theoretical knowledge of the diseases in practice 			
12.	Teaching methods: Interactive theoretical lessons, practical lessons, seminars			
13.	Total classes:	60 lessons epidemiology + 60 lessons infectology Credits 4*30 lessons for 1 credit = 12 = 60 theoretical lessons, practical lessons and seminars + 60 lessons learning at home		
14.	Organization			
15.	Types of teaching activities	15.1	Lessons: theoretical classes	15 theoretical lessons epidemiology 15 theoretical lessons infectology
		15.2	Practical lessons (laboratory, clinical), seminars, team work	15 practical lessons epidemiology 15 practical lessons infectology
16.	Other types of activities	16.1		
		16.2		
		16.3	Learning at home	30 lessons epidemiology 30 lessons infectology
17.	Knowledge assessment		Points	
	17.1	Tests	Mid-term exam* points 18 – 30 min.-max. The mid-term exam consists of 2 written tests The students can gain 9 – 15 points on each mid-term exam	
	17.2	Final exam	Oral part points 36 – 52 min.-max.	
	17.3	Paper/ project (written/ oral	Paper points 0 – 5 min.-max.	

		presentation	
	17.4	Active presentation	<p>Theoretical lessons points 1 – 3 min.-max. Practical lessons points 5 – 10 min.-max.</p> <p>Attendance to the theoretical lessons 51-61% = 1 point 61-91% = 2 points 91-100%= 3 points</p> <p>Practical lessons (24 groups of practical lessons with the duration of 3 hours_</p>
18.	Grading criterion (points/grades)	Up to 59	5 (five) F
		60-68	6 (six) E
		69-76	7 (seven) D
		77-84	8 (eight) C
		85-92	9 (nine) B
		93-100	10 (ten) A
19.	Requirements for obtaining a signature and attending the final examination	<p>To obtain a signature, the student must gain minimum points from attending the theoretical lessons and practical lessons.</p> <p>To attend the final exam, the student must pass the mid-term exams or gain at least 30% of the total points. In the exam session, the student first must pass the mid-term exams and then attend the final exam.</p> <p>The final grade is formed according to the grading criterion, and is based on the sum of the points of all the activities, mid-term exams and final exam.</p>	
20.	Language	Macedonian	
21.	Method of evaluating the quality of the lessons	Students' anonymous evaluation of the lessons, the teachers and the collaborators.	
22.	Literature:		
	22.1	Mandatory literature – epidemiology	
		1.	Danilovski D., Orovchanec N., Vasilevska K., Taushanova B., Velikj Stefanovska V., Isjanovska R., Zafirova Ivanovska B., Zdravkovska M., Pavlovska I., General Epidemiology, University Ss. Cyril and Methodius, Medical Faculty, 2007
		2.	Danilovski D., Orovchanec N., Vasilevska K., Taushanova B., Velikj Stefanovska V., Isjanovska R., Zafirova Ivanovska B., Zdravkovska M., Pavlovska I., Specialized Epidemiology, University Ss. Cyril and Methodius, Medical Faculty, 2009
		3.	James F., Jackel, David L., Cac, Joan J., Elmor, Dorotea M. J. Wild, Epidemiology, Biostatistics and Preventative Medicine, Tabernakul, 2010
	22.2	Mandatory literature – infectology	
		1.	Johnathan Coen, William J., Pauderli, Infectious

			Diseases, Volume 1 and 2, Tabernakul, 2012
		2.	Dimitriev Dimitar, Ivanovski Ljubomir, Milenkovicj Zvonko, Grunevska Violeta, Kondova Topuzovska Irena, Stojkovska, Infectious Diseases, University Ss. Cyril and Methodius, Medical Faculty, Skopje, 2012