

Program of Study : Dentistry
Course : Microbiology 2 – Oral Microbiology
Abbreviation : MIK/ZAA12
Schedule : 15 hours of lectures
 30 hours of exercises
Course Distribution : 3rd year, 5th semester
Number of Credits : 5
Course Form : Lectures, exercises

Lectures :

Teachers : prof. MUDr. Milan Kolář, Ph.D.
 doc. MUDr. Petr Hamal, Ph.D.
 Mgr. Patrik Mlynářčík, Ph.D.
 MUDr. Peter Imwensi

Study : Continuous

	Date	Subject	No. of Less.	Teacher
1	24.9.2021	Resistance of microbes to antibiotics (mechanisms and spreading).	1	prof. Kolář
2	24.9.2021	Antimicrobial agents – classification.	1	prof. Kolář
3	8.10.2021	Genus <i>Streptococcus</i> . Streptococcal infections.	1	prof. Kolář
4	8.10.2021	Genus <i>Staphylococcus</i> . Staphylococcal infections.	1	prof. Kolář
5	22.10.2021	<i>Salmonella</i> . Genus <i>Shigella</i> . Other enterobacteria.	1	doc. Hamal
6	22.10.2021	Gastrointestinal tract infections.	1	doc. Hamal
7	5.11.2021	Genus <i>Neisseria</i> . Clinical diseases caused by gonococci and meningococci. Genus <i>Haemophilus</i> .	1	Dr. Imwensi
8	5.11.2021	Genus <i>Treponema</i> . Syphilis. Genus <i>Borrelia</i> . Lyme borreliosis	1	Dr. Imwensi
9	19.11.2021	Anaerobic infections.	1	Mgr. Mlynářčík
10	19.11.2021	Genus <i>Clostridium</i> . Tetanus, botulism, gas gangrene.	1	Mgr. Mlynářčík
11	3.12.2021	General mycology.	1	doc. Hamal
12	3.12.2021	Genus <i>Candida</i> . Systemic mycoses.	1	doc. Hamal
13	17.12.2021	Characterization of viruses.		prof. Kolář
14	17.12.2021	Most frequent viral infections. Antiviral therapy.		prof. Kolář

15	31.12.2021	Christmas holidays.		
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Exercises :

Leading teacher : doc. MUDr. Petr Hamal, PhD.

Study : Continuous

	Date	Subject	No. of Less.
1	24.9.2021	Identification of gram-positive microorganisms 1 st part: Laboratory diagnosis of streptococci and enterococci. General characteristics of bacterial colonies. Collection, transport and processing of specimens from upper respiratory tract.	2
2	1.10.2021	Identification of gram-positive microorganisms 2 nd part: Laboratory diagnosis of staphylococci and corynebacteria. General characteristics of bacterial colonies. Collection, transport and processing of specimens from lower respiratory tract.	2
3	8.10.2021	Identification of gram-negative microorganisms 1 st part: . Laboratory diagnosis of enterobacteria, <i>Acinetobacter</i> , <i>Pseudomonas</i> and <i>Stenotrophomonas</i> species. General characteristics of bacterial colonies. Collection, transport and processing of specimens from urinary tract and stool.	2
4	15.10.2021	Identification of gram-negative microorganisms – 2 nd part: Laboratory diagnosis of <i>Acinetobacter</i> , <i>Pseudomonas</i> and <i>Stenotrophomonas</i> species. General characteristics of bacterial colonies.	2
5	22.10.2021	Laboratory diagnosis of <i>Neisseria</i> , <i>Bordetella</i> and <i>Haemophilus</i> species. General characteristic of bacterial colonies.	2
6	29.10.2021	Identification of anaerobic bacteria: <i>Actinomyces</i> , <i>Peptococcus</i> , <i>Peptostreptococcus</i> , <i>Bacteroides</i> and <i>Clostridium</i> species. General characteristics of bacterial colonies.	2
7	5.11.2021	Laboratory diagnosis of mycobacterial infections.	2
8	12.11.2021	Differential microbiological diagnosis of genital tract infections and sexually transmitted diseases. Microbial vaginal pictures	2
9	19.11.2021	Laboratory diagnosis of viral infections 1 st part: Principles of the complement fixation test and immunoenzymatic reaction.	2
10	26.11.2021	Laboratory diagnosis of viral infections 2 nd part: Serodiagnosis of influenza. Serodiagnosis of glandular fever.	2
11	3.12.2021	Mycology 1 st part: Collection and transport of the specimens to the mycologic study. Microscopic examination and cultivation of fungi. Identification of moulds; macro- and microculture. Laboratory diagnosis of <i>Aspergillus</i> , <i>Penicillium</i> , <i>Mucor</i> and <i>Trichophyton</i> species.	2
12	10.12.2021	Mycology 2 nd part:	2

		Identification of yeasts. Selective-differential agars for rapid diagnostic of medically important <i>Candida</i> species. Ascospores, chlamydo spores, assimilation and fermentation test.	
13	17.12.2021	Microbiological diagnosis of upper and lower respiratory tract infections. Microbiological diagnosis of bloodstream infections.	2
14	24.12.2021	State holiday.	
15	7.1.2022	Microbiological diagnosis of hospital-acquired infections. Microbiological diagnosis of community-acquired infections.	2

Completed by : Exam

Requirements : Presence in practical trainings, one absence tolerated at the most, it's possible substitute up to one third of practical trainings. Individual preparation for each practical training is obligatory. Credit test.

Basic literature :

1. Medical Microbiology: with student consult access (Medical Microbiology) (Paperback 2005) by Patrick R. Murray et al. (available at www.amazon.com)
2. Koukalová D. et al.: Microbiology I, UP v Olomouci, 2002
3. Kolář et al.: Microbiology II, UP v Olomouci, 2002

Alternative literature :

4. Medical Microbiology (Paperback 2004) by Cedric A. Mims (Editor), (available at www.amazon.com)
5. Human Virology: A Text for Students of Medicine, Dentistry and Microbiology (Paperback 2000) by Leslie Collier et al. (available at www.amazon.com)