

**SUBJECT: MEDICAL MICROBIOLOGY**  
**II academic year 2022-2023**

**SCHEDULE & PROGRAMME**

**III (WINTER) SEMESTER**

**INTRODUCTION IN MEDICAL MICROBIOLOGY. BACTERIOLOGY**

WEEK/DATE	LESSONS (number) TOPIC	LECTURER
I 07. 10. 2022.	<p><b>Lecture (2)</b> Introduction in Medical Microbiology. Bacterial taxonomy and general bacterial properties. Bacterial structures (capsule, cell wall).</p> <p><b>Seminar (2)</b> Pathogenicity and virulence. Normal microbiota and symbiotic associations.</p>	<p>Assoc Prof Vera Mijač</p> <p>Prof Dragana Vuković Assoc Prof Vera Mijač</p>
II 14. 10. 2022.	<p><b>Lecture (2)</b> Bacterial structures, biosynthesis and organization of bacterial cell (spore, flagelum, pilli, etc.). Sterilization, control of sterilization, disinfection.</p> <p><b>Lab (2)</b> Specimen collection (examination of specimen from different organ systems). Specimen transport (package and labeling).</p>	<p>Assoc Prof Vera Mijač</p> <p>Asst Prof Irena Arandelović Asst Dušan Kekić</p>
III 21. 10. 2022.	<p><b>Lecture (2)</b> Physiology of bacterial cells. Bacterial metabolism; nutrition requirements for growth and replication of bacteria.</p> <p><b>Lab (2)</b> Detection of bacteria in clinical specimens (microscopic examination, antigen detection and gene detection).</p>	<p>Prof Slobodanka Đukić</p> <p>Asst Prof Ina Gajić Asst Miloš Jovičević</p>
IV 28. 10. 2022.	<p><b>Lecture (2)</b> Bacterial genetic material. Genetic exchange in bacteria: transformation, conjugation and transduction.</p> <p><b>Lab (2)</b> Methods for isolation and identification of bacteria.</p>	<p>Prof Lazar Ranin</p> <p>Asst Miloš Jovičević Asst Dušan Kekić</p>

V 04. 11. 2022.	<b>Lecture (2)</b> Mechanism of action of antibacterial agents (antibiotics). Bacterial resistance to antibacterial agents.	Prof Nataša Vučković Opavski
	<b>Lab (2)</b> Antimicrobial susceptibility testing.	Asst Prof Ina Gajić Asst Prof Irena Arandelović
VI 11. 11. 2022.	<b>Lecture (2)</b> Virulence factor of bacteria (adhesive factors, invasive factors, toxins). <b>Seminar (2)</b> Properties and medical importance of <i>Staphylococcus</i> spp. Biofilm formation.	Asst Prof Irena Arandelović Prof Slobodanka Đukić Asst Prof Ina Gajić
VII 18. 11. 2022.	<b>Lecture (2)</b> Properties of and medical importance of <i>Streptococcus</i> spp. and <i>Enterococcus</i> spp. <b>Seminar (2)</b> Properties and medical importance of <i>Corynebacterium</i> spp. Bacterial zoonoses. Properties and medical importance of <i>Bacillus</i> spp.	Prof Nataša Vučković Opavski Prof Dragana Vuković Assoc Prof Vera Mijač
VIII 25. 11. 2022.	<b>Lecture (2)</b> Properties and medical importance of <i>Clostridium</i> spp. <b>Lab (2)</b> Laboratory diagnosis of infections caused by <i>Streptococcus</i> spp. and <i>Enterococcus</i> spp.	Prof Lazar Ranin Asst Dušan Kekić Asst Miloš Jovičević
IX 02. 12. 2022.	<b>Lecture (2)</b> Properties and medical importance of <i>Mycobacterium</i> spp. <b>Lab (2)</b> Laboratory diagnosis of infections caused by <i>Staphylococcus</i> spp. Laboratory diagnosis of infections caused by <i>Mycobacterium</i> spp.	Prof Dragana Vuković Asst Miloš Jovičević Asst Prof Irena Arandelović
X 09. 12. 2022.	<b>Lecture (2)</b> Properties and medical importance of order Enterobacterales. Characteristics and medical importance of <i>Escherichia coli</i> . Characteristics and medical importance of opportunistic enterobacteria. <b>Seminar (2)</b> Properties and medical importance of anaerobic non-spore-forming bacteria. Properties and medical importance of <i>Legionella pneumophila</i> and <i>Listeria monocytogenes</i> .	Prof Dragana Vuković Assoc Prof Vera Mijač Prof Nataša Vučković Opavski

XI 16. 12. 2022.	<b>Lecture (2)</b> Properties and medical importance of <i>Haemophilus influenzae</i> , HACEK group and <i>Bordetella pertussis</i> .	Prof Nataša Vučković Opavski
	<b>Seminar (2)</b> Properties and medical importance of <i>Salmonella</i> spp., <i>Shigella</i> spp. and <i>Yersinia</i> spp.	Prof Dragana Vuković Asst Prof Irena Arandelović
XII 23. 12. 2022.	<b>Lecture (2)</b> Properties and medical importance of Gram negative non-fermentative bacteria.	Prof Dragana Vuković
	<b>Lab (2)</b> Laboratory diagnosis of infections caused by enterobacteria and Gram negative non-fermentative bacteria.	Asst Prof Irena Arandelović Ass Miloš Jovičević
XIII 30. 12. 2022.	<b>Lecture (2)</b> Properties and medical importance of <i>Neisseria</i> spp. and <i>Moraxella</i> spp. Properties and medical importance of <i>Nocardia</i> spp. and <i>Rhodococcus</i> spp.	Asst Prof Ina Gajić
	<b>Lab (2)</b> Laboratory diagnosis of infections caused by anaerobic spore-forming and non-spore-forming bacteria. Laboratory diagnosis of infections caused by <i>Neisseria</i> spp.	Ass Prof Irena Arandelović Asst Dušan Kekić
XIV 6. 1. 2023.	<b>Lecture (2)</b> Properties and medical importance of genus <i>Chlamydia</i> , <i>Mycoplasma</i> , and <i>Ureaplasma</i> .	Prof Slobodanka Đukić
	<b>Seminar (2)</b> Properties and medical importance of <i>Vibrio</i> spp., <i>Campylobacter</i> spp. and <i>Helicobacter pylori</i> .	Prof Lazar Ranin Prof Nataša Vučković Opavski
XV 13. 1. 2022.	<b>Lecture (2)</b> Properties and medical importance of <i>Brucella</i> spp. and <i>Francisella</i> spp. Properties and medical importance of the genera <i>Rickettsia</i> , <i>Bartonella</i> , <i>Ehrlichia</i> , and <i>Coxiella</i> .	Prof Slobodanka Đukić
	<b>Seminar (2)</b> Bacterial vaccines.	Assoc Prof Vera Mijač Prof Nataša Vučković Opavski