Schedule of microbiology and immunology lectures as well as practicals for 3rd year pharmacy students 2018/2019. fall semester

Oktatási hét	Microbiology Lecture: 2h Wednesday 12-14 Classroom III.	Microbiology Lecture 2h Thursday 10-12 Classroom IV.	Practicals Thursday 17-19
1.) IX. 03.-07.	Introduction to microbiology. Classification and characterization of bacteria. **Dr. Katalin Burián**	Microbial genetics. Principles and practice of sterilization. **Dr. Ferenc Somogyvári**	Introduction, laboratory safety. Wet-mount preparation. Preparation of bacterial smear, simple staining.
2. IX. 10.-14.	Basic principles of immunology. Constituents of the immune system. Primary and secondary immune organs. Antigens. **Dr. Katalin Burián**	Ontogeny of T-cells. Antigen recognition by and activation of T cells. The histocompatibility complex (MHC). Structure of the molecules and functional heterogeneity. Genetic organization. Antigen presentation by MHC. **Prof. Yvette Mándi**	Combined staining. Disinfection.
3. IX. 17.-21.	Major features of innate immunity. Phagocytosis. Complement system. **Dr. Katalin Burián**	Humoral immune response. Structure of immunoglobulins, heterogeneity and genetics. **Dr. Katalin Burián**	Culture media. Inoculation and plating bacterial culture. Haemoculture. Anaerobic cultivation.
4. IX. 24.-28.	Immunopathology. Hypersensitivity reaction. **Prof. Yvette Mándi**	Major elements of immune regulation. Signal transduction systems. Adhesion molecules. Cytokines. **Dr. Klára Megyeri**	Colony morphology. Biochemical tests.
5. X. 01.-05.	Staphylococcus, Streptococcus, Neisseria, Enterococcus. **Dr. Katalin Burián**	Obligate intracellular bacteria (Chlamydia, *Coxiella burnetii, R. slovaca, R. prowazekii).* **Dr. Valéria Endrész**	Sterility and pyrogenicity testing of pharmaceutical products. Practice of sterilization. Sterility testing
6. X. 08.-12.	Gram negative rods. **Dr. Gabriella Spengler**	Mycobacterium, Legionella, Corynebacterium, Listeria, Bordetella, Haemophilus **Dr. Klára Megyeri**	Summary of the most important human pathogenic bacteria I.
7. X. 15.-19.	Principles and practice of disinfection. Factory hygiene and good manufacturing practice. Microbiological requirements and purity classes of pharmaceutical products. **Dr. Ferenc Somogyvári**	Pharmaceutical biotechnology. Production of pharmaceuticals by recombinant DNA technology. **Dr. Ferenc Somogyvári**	Summary of the most important human pathogenic bacteria II.

	Microbiology **Lecture: 2h Wednesday 12-14** **Classroom III.**	**Microbiology** **Lecture 2h Thursday 10-12** **Classroom IV.**	**Practicals** **Thursday 17-19**
8. X. 22.-26. **X.22-24. Holiday**	**Holiday**	Gram positive anaerob rods (Clostridium) Bacillus, Bacteroides **Dr. Katalin Burián**	Serological tests Precipitation, agglutination. CFT; IF; ELISA
9. X.29.- XI. 02. **XI. 01.-02. Holiday**	Pathogenesis of bacterial infection. **Dr. Valéria Endrész** Spirochaetales **Dr. Valéria Endrész**	**Holiday**	**Holiday**
10. XI. 05.-09.	Bacterial resistance to antibiotics. Antibiotic policy. Industrial production of antibiotics. **Dr. Tímea Mosolygó**	General properties and structure of viruses. Reproduction of viruses. Viral pathogenesis, chemotherapy of viral infections. **Dr. Dezső Virók**	Test of bacterial resistance to antibiotics. Enumeration of bacteria.
11. XI. 12.-16.	DNA viruses. Herpesviruses, human papillomaviruses, adenoviruses, parvovirus **Dr. Katalin Burián**	Hepatitis viruses, Flaviviridae **Dr. Katalin Burián**	Propagation and assay of viruses
12. XI. 19.-23.	RNA viruses I. Influenzaviruses, measles-, mumps-, rubeola viruses **Prof. Yvette Mándi**	RNA viruses II. Poliovirus, coxsackie viruses, rabiesvirus, calicivirus, astrovirus, reovirus, rhinovirus, coronavirus **Dr. Ferenc Somogyvári**	Serological methods in virology.
13. XI. 26.-30.	RNA viruses III. Slow viruses. Retroviridae, AIDS **Dr. Klára Megyeri**	Fungi of medical importance. **Dr. Klára Megyeri**	Important human pathogenic fungi
14. XII. 03.-07.	Important human pathogenic protozoa. **Dr. Katalin Burián**	Important human pathogenic helminths. **Dr. Katalin Burián**	Vaccination