

**Information sheet for the course
Examination methods in Microbiology II.**

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of Health Care</i>	
Course unit code: <i>VMMikr2/d</i>	Course unit title: <i>Examination methods in microbiology II.</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>Lecture: 1 hour weekly/13 hours per semester of study; full-time</i> <i>Seminar: 4 hours weekly/52 hours per semester of study; full-time</i>	
Number of credits: <i>3</i>	
Recommended semester: <i>2nd semester in the 1st year (full-time)</i>	
Degree of study: <i>I (bachelor)</i>	
Course prerequisites: <i>Examination methods in microbiology I., Microbiology</i>	
Assessment methods: <i>Written or oral examination (50 score points)- for obtaining the particular grades it is necessary to achieve:</i> <i>at least 45 score points for the grade A</i> <i>at least 40 score points for the grade B</i> <i>at least 35 score points for the grade C</i> <i>at least 30 score points for the grade D</i> <i>at least 25 score points for the grade E</i>	
Learning outcomes of the course unit: <i>Student will acquire comprehensive information on the diagnosis of the most clinically significant bacteria, viruses, and unicellular parasites micromycetes following to clinical manifestation of the disease.</i>	
Course contents: Lectures: <i>1. Taxonomy of bacteria, clinically most important species</i> <i>2. Laboratory diagnosis of the genera Staphylococcus, Streptococcus, Enterococcus,</i> <i>3. Laboratory diagnosis of the genera Mycobacterium, Neisseria, Helicobacter, Campylobacter, Treponema, Borrelia,</i> <i>4. Laboratory diagnosis of the genera Bacillus, Clostridium,</i> <i>5. Laboratory diagnosis of the genera Vibrio, Haemophilus, Escherichia, Klebsiella,</i> <i>6. Laboratory diagnosis of the genera Salmonella, Shigella, Yersinia, Pseudomonas,</i> <i>7. Laboratory diagnosis of the genera Corynebacterium, Listeria, Chlamydia,</i> <i>8. Laboratory diagnosis of the genera Rickettsia, Mycoplasma, Ureaplasma</i> <i>9. Taxonomy and laboratory diagnosis of parasites: Flagellata, Rhizopoda, Ciliophora, Sporozoa</i> <i>10. Taxonomy of viruses and laboratory diagnosis.</i> <i>11. Microscopic fungi and their laboratory diagnostics</i> <i>12. Species of micro-organisms which form the natural microflora of the human body</i>	
Seminars: <i>1. Understanding the microbiological laboratory and the specifics of its operation - using a Bunsen burner</i> <i>2. Specific features of biological factors - the grouping in personal risk exposure, guidance on confidentiality</i>	

3. Preparation of cultivation media, agar processing, Petri dish, liquid cultivation media
4. The procedures and principles of microorganisms inoculation
5. Microscopic techniques - diagnostics of microorganisms - micromycets
6. Microscopic techniques – cell count chamber, a quantitative determination of microorganisms
7. Determination of the growth curve of microorganisms
8. Diagnostic staining - procedure
9. Quality Management microbiology laboratory - practicing the basic rules of handling calibration and control materials
10. Interpretation of selected quantitative and qualitative microbiological tests
11. Certification, accreditation of the microbiology laboratory

Recommended of required reading:

1. VOTAVA, M.: 2005. *Lékařská mikrobiologie obecná*, Neptun, Brno, 2005, ISBN 9788086850009, 351 p.
2. VOTAVA, M.: 2003. *Lékařská mikrobiologie speciální*, Neptun, Brno, 2003, ISBN 9788090289666, 945 p.
3. BEDNÁŘ, M., FRAŇKOVÁ, V., SCHINDLER, J., SOUČEK, A., VÁVRA, J.: 1996. *Lékařská mikrobiologie*, Triton, Praha, 1996, ISBN 80-2380-297-6, 560 p.
4. ŠTEFANOVIČ, J. 2008. *Lexikon lékařskej bakteriologie*, Slovenská lekárska komora, Bratislava, 2008; 78 p.

Language: Slovak

Remarks:

Evaluation history: Number of evaluated students: -

A	B	C	D	E	FX
-	-	-	-	-	-

Lectures:

RNDr. Vladimír Meluš, PhD., MPH

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Supervisor: Doc. MUDr. Jana Slobodníková, CSc.