

**Vocational School / Medical Laboratory Techniques**

**2023 - 2024 Academic Year**

**MICROBIOLOGY LABORATORY**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
MICROBIOLOGY LABORATORY	TLT2178070	Fall Semester	1+3	2,5	7
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>	None				
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	Short Cycle (Associate's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Lect. Aslıhan DEMİRCAN				
<b>Name of Lecturer(s)</b>	Lect. Hasan SAĞCAN				
<b>Assistant(s)</b>	None				
<b>Aim</b>	To describe the role of medical microbiology laboratory in the diagnosis of infectious disease and give information about methods and tests used in diagnostic microbiology.				
<b>Course Content</b>	This course contains; Introduction to medical microbiology laboratory and biosafety rules, Structure of bacteria and stains used in bacteriology and microscopy techniques I, Structure of bacteria and stains used in bacteriology and microscopy techniques I, Microbiological media used in bacteriology and culture techniques I, Microbiological media used in bacteriology and culture techniques II, Identification tests used in bacteriology, Antimicrobial susceptibility tests, Structure of fungi and stains used in mycology and microscopy techniques I, Structure of fungi and stains used in mycology and microscopy techniques II, Microbiological media used in mycology and culture techniques I, Microbiological media used in mycology and culture techniques II, Identification tests used in mycology, Structure of parasites and diagnostic methods used in parasitology I, Structure of parasites and diagnostic methods used in parasitology II.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
Students will learn the structure of microorganisms.			16, 9	A	
Students will know diagnostic microbiological techniques			17, 9	A	
Students will perform basic microbiological techniques			16, 6, 9	A	
Defines biosafety rules.			16, 17, 9	A	
<b>Teaching Methods</b>	16: Question - Answer Technique, 17: Experimental Technique, 6: Experiential Learning, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Introduction to medical microbiology laboratory and biosafety rules				
2	Structure of bacteria and stains used in bacteriology and microscopy techniques I				
3	Structure of bacteria and stains used in bacteriology and microscopy techniques I				
4	Microbiological media used in bacteriology and culture techniques I				
5	Microbiological media used in bacteriology and culture techniques II				
6	Identification tests used in bacteriology				
7	Antimicrobial susceptibility tests				
8	Structure of fungi and stains used in mycology and microscopy techniques I				
9	Structure of fungi and stains used in mycology and microscopy techniques II				
10	Microbiological media used in mycology and culture techniques I				
11	Microbiological media used in mycology and culture techniques II				
12	Identification tests used in mycology				
13	Structure of parasites and diagnostic methods used in parasitology I				
14	Structure of parasites and diagnostic methods used in parasitology II				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		40			
General Exam		60			

<b>Resources</b>
lecturer's notes Altındış M (2013). Tibbi Laboratuvar kitabı (textbook in Turkish). İstanbul: Nobel Tıp Kitabevi Koneman's Color Atlas and Textbook of Diagnostic Microbiology 7th ed.