



**AYDIN ADNAN MENDERES UNIVERSITY**  
**AYDIN VOCATIONAL SCHOOL OF HEALTH SERVICES**  
**MEDICAL SERVICES AND TECHNIQUES**  
**MEDICAL LABORATORY TECHNIQUES**  
**COURSE INFORMATION FORM**

Course Title	Microbiology II								
Course Code	TL209	Course Level			Short Cycle (Associate's Degree)				
ECTS Credit	3	Workload	76 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To teach the information and skills to identify the biogenic bacteria, to make tests of anti biological sensitivity, to make analysis of microbacteriologic and mycology								
Course Content	Identify biogenic bacteria, Make tests of anti biological sensitivity, Make mycobacteriologic analysis, Prepare microbiological preparation, Make mycology analysis								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Case Study, Individual Study								
Name of Lecturer(s)	Assoc. Prof. Canan HAZIR								

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

#### Recommended or Required Reading

1	Bilgehan H. Temel Mikrobiyoloji ve Bağışıklık Bilimi 8. Baskı. Fakülteler Kitabevi, Bornova, 1996
2	Serter N. Mikrobiyoloji. T.C. Anadolu Üniversitesi Yayınları No:490, Eskişehir, 1991.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction and Scope
2	Theoretical	Taking and transporting clinical specimens to be examined in terms of microbiology
3	Theoretical	General methods used to identify bacteria
4	Theoretical	Macroscopic examination of bacteria, culture
5	Theoretical	Microscopic examination of bacteria, staining methods
6	Theoretical	Identification of bacteria by biochemical analysis
7	Theoretical	Identification of bacteria by biochemical kits
8	Intermediate Exam	Midterm exam
9	Theoretical	Antibiotic susceptibility tests, disk diffusion and dilution tests
10	Theoretical	Antibiotic susceptibility tests, gradient strip tests and automated methods
11	Theoretical	The importance and use of genetic methods in bacterial identification
12	Theoretical	Genotypic methods
13	Theoretical	PCR, DNA sequence analysis
14	Theoretical	General characteristics of fungi
15	Theoretical	Performing mycological analysis

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Midterm Examination	1	2	1	3
Final Examination	1	2	1	3
			Total Workload (Hours)	76
			[Total Workload (Hours) / 25*] = ECTS	3

\*25 hour workload is accepted as 1 ECTS

#### Learning Outcomes

1	Identification of breeding bacteria
2	Perform an antibiotic susceptibility test



3	Make mycobacterial analysis
4	Make mycology analysis
5	Microbiological testing methods utilized in diagnosis of knowing

### Programme Outcomes (Medical Laboratory Techniques)

1	To be able to have sufficient back ground in medical laboratory techniques and medical laboratory branches (biochemistry, microbiology, parasitology, sitogenetiketc.);the ability to use theoretical and practical knowledge in these fields.
2	To be able to have the basic theoretical and practical knowledgeand other resources have been supported applications and tools based on secondary-level qualifications gained in the field of Medical Laboratory Techniques Program to-date text boks containing formations
3	To be able to have basic knowledge about structure and function of systems in human, to analyse these data on tissue, cell and diseases.
4	To be able to analyse the medical samples necessary for physicians by using tools, equipment and techniques at the diagnostic and the rapeutic laboratories of health agencies and evaluate the data.
5	To be able to use the medical laboratoy tools and equipments according to rules and technics, and make controls and maintenance of them
6	To be able to perform basic tests of related different medical laboratories, prepare solutions.
7	To be able to perform proper sample collection and transport procedures for the medical laboratory tests from the patient.
8	To be able to perform preanalytical sample preparation procedure, prepare inspection preparations, perform disinfection and sterilization
9	To be able to interpret and evaluate data, define and analyze problems, develop solutions based on research and proofs by using acquired basic knowledge and skills with in the field.
10	To be able to have knowledge about work organization and carry out related practice in medical laboratories
11	To be able to carry out laboratory safety protocols, take individual safety precaution and create safe laboratory environment.
12	To be able to gain the ability to apply by viewing and evaluating the processes related to his/her fields in public and private sector.
13	To be able to gain the awareness of the necessity of life long learning, ability to follow developments in science and technology and self-renewal.
14	To be able to help laboratory experts and medical scientists for their researches
15	To be able to be aware of individual and public health, environmental protection and job security issues, under standing the basic level of the relationship.
16	To be able to grasp principles of Atatürk and there volutions, to ensurenational, ethical, spiritual and cultural values, to adopt to universal and contemporary developments
17	To be able to communicate efficiently for medical service and speak Turkish efficiently.
18	To be able to communicate in English at basic level, utilize foreign language on occupational practice

### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	5	5	5	5	5
P2	5	5	5	5	5
P4	5	5	5	5	5
P5	5	5	5	5	5
P6	5	5	5	5	5
P7	5	5	5	5	5
P8	5	5	5	5	5
P9	5	5	5	5	5
P10	5	5	5	5	5
P11	5	5	5	5	5
P12	5	5	5	5	5
P13	5	5	5	5	5
P14	5	5	5	5	5
P15	4	4	4	4	4

