AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Laboratory Techniques and Instrumentation								
Course Code	TL307		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To teach the laboratory instruments and the principles of the analytical application								
Course Content	General laboratory techniques and procedures, Analytical techniques and instrumantation								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Lecture notes, PowerPoint presentations, medical journals and publications

Week	Weekly Detailed Course Contents	
1	Theoretical	The operation of the laboratory
2	Theoretical	The basic laboratory equipments
3	Theoretical	The units and measuring systems
4	Theoretical	The units and measuring systems
5	Theoretical	Prepare the solution
6	Theoretical	Prepare the solution
7	Theoretical	The basic laboratory techniques
8	Intermediate Exam	Mid-term exam
9	Theoretical	The basic laboratory techniques
10	Theoretical	The basic laboratory techniques
11	Theoretical	The basic laboratory techniques
12	Theoretical	The analytical types used in the laboratory
13	Theoretical	The analytical types used in the laboratory
14	Theoretical	The analytical types used in the laboratory
15	Theoretical	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Quiz	2	2	1	6
Midterm Examination	1	5	1	6
Final Examination	1	6	1	7
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	1. Learns the operation of the laboratory
2	2. Knows the basic laboratory equipments
3	3. Knows the units and measuring systems
4	4. Knows to prepare the solutions

5	5. Knows the types and collection of the samples
6	6. Knows to prepare the samples for the analyses
7	7. Knows the analytical types used in the laboratory
8	8. Knows the equipments used for the analytical process
9	9. Knows the basic laboratory techniques

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
19	To have the appropriate knowledge of medical sciences at the level of interest, to use specific medical terms and terminology of field

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

	L1	L2	L3	L4	L5	L6	L7	L8	L9
P1	5	5	5	5	5	5	5	5	5
P2	5	5	5	5	5	5	5	5	5
P4	5	5	5	5	5	5	5	5	5
P5	5	5	5	5	5	5	5	5	5
P6	5	5	5	5	5	5	5	5	5
P7	5	5	5	5	5	5	5	5	5
P8	5	5	5	5	5	5	5	5	5
P9	5	5	5	5	5	5	5	5	5
P10	5	5	5	5	5	5	5	5	5
P11	5	5	5	5	5	5	5	5	5
P12	5	5	5	5	5	5	5	5	5
P13	5	5	5	5	5	5	5	5	5
P14	5	5	5	5	5	5	5	5	5
P15	5	5	5	5	5	5	5	5	5