AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Clinical Biochemistry II								
Course Code	TL206		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To perform the hospital biochemistry laboratory tests during the normal work flow and appropriate laboratory, pre-preparation, sample processing, sample-making processes work and to get results.								
Course Content	Basic patient registration, sample collection, Various sample collectionc and their applications, preanalytical errors in lab., Blood counting (manuel methods), Blood counting (automatic analysis methods), Urine examination (manuel and automatic methods) urine protein and creatinine analysis., Urine sedimentation analysis (microscopic examination), Biochemical parameter analysis with automation, Turbidimetric methods (coagulation analysis vs.), Nephelometric methods (Apo A and Apo B, vs.), HPLC methods (HbA1C, vs.), Radioimmunassay methods, Chemiluminescence methods (Hormone analysis and Therapeutic drog monitoring).								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Case Study, Individual Study								
Name of Lecturer(s)									

Prerequisites & Co-requisities	
Co-requisitie	TL210

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

Recommended or Required Reading	
1	Klinik Biyokimya, Bahattin Adam, Nobel Tıp Kitabevleri, 2000
2	Klinik Biyokimya Analiz Metodları, Bahattin Adam ve Yasemin Ardıçoğlu, Atlas Kitapçılık, 2002
3	Klinik Biyokimya Laboratuvarı El Kitabı, Idris Mehmetoğlu, Nobel Tıp Kitabevleri, 2007

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic patient registration, sample collection
2	Theoretical	Various sample collectionc and their applications, preanalytical errors in lab.
3	Theoretical	Blood counting (manuel methods)
4	Theoretical	Blood counting (automatic analysis methods)
5	Theoretical	Urine examination (manuel and automatic methods) urine protein and creatinine analysis
6	Theoretical	Urine sedimentation analysis (microskopic examination)
7	Theoretical	Biochemical parameter analysis with automation 1
8	Intermediate Exam	Mid-term exam
9	Theoretical	Biochemical parameter analysis with automation 2
10	Theoretical	Turbidimetric methods
11	Theoretical	Nephelometric methods
12	Theoretical	HPLC methods
13	Theoretical	Radioimmunassay methods
14	Theoretical	Chemiluminescence methods I (Hormone analysis)
15	Theoretical	Chemiluminescence methods II (Therapeutic drog monitoring)

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Individual Work	14	0	1	14
Midterm Examination	1	2	2	4

Final Examination	1	2	2	4
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Learning the vision and mission of the clinical biochemistry
2	Disease and organ or system relationship
3	Relationship between disease and biochemical tests
4	Interpretetaion of biochemical tests
5	Methodology of biochemical tests

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
P1	5	5	5	5	5
P2	5	5	5	5	5
P3	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	4	4	4	4	4

P11	5	5	5	5	5
P12	3	3	3	3	3
P13	5	5	5	5	5
P14	3	3	3	3	3
P15	5	5	5	5	5
P18	5	5	5	5	5