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

Course Title	Clinical Biochemistry Application II								
Course Code	TL210		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	5	Workload	125 *(Hours)*	Theory	0	Practice	4	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, Demonstration, Discussion, Case Study, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Practice Examination	1	100

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

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Practice	14	2	4	84
Individual Work	12	0	3	36
Practice Examination	1	1	4	5
			Total Workload (Hours)	125
			[Total Workload (Hours) / 25*] = **ECTS**	5

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes	
1	Biochemistry Laboratory has extensive experience of working
2	Have the knowledge about to clinical laboratory operations, laboratory safety and practices
3	Acquires theoretical knowledge and practical skills related to laboratory instruments, equipment, and use of them.
4	Have the knowledge and skills to accept or reject the samples to the laboratory,handling, transmitting, storing of them.
5	Have the knowledge and skills in routine biochemical analysis.

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