



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

Course Title	Chemistry For Laboratory								
Course Code	TL308	Course Level			Short Cycle (Associate's Degree)				
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Atoms into molecules and ionic substances in the chemical properties, chemical reactions, to understand and interpret the solution chemistry to the solution of chemical problems by being able to gain skills to apply.								
Course Content	Matter-its properties and measurement, atoms and atomic theory, the periodic table and some atomic properties, chemical compounds and solution chemistry								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)	Ins. Mert SOYSAL								

#### Assessment Methods and Criteria

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

#### Recommended or Required Reading

1	Temel Kimya, Anadolu Üniversitesi Yayınları no 672
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Week	Weekly Detailed Course Contents	
1	Theoretical	Chemistry science, matter-its properties and measurement
2	Theoretical	Atoms and the atomic theory, atomic numbers and isotops
3	Theoretical	Atoms and the atomic theory, atomic numbers and isotops
4	Theoretical	The periodic table and some atomic properties
5	Theoretical	The periodic table and some atomic properties
6	Theoretical	Chemical formulas, chemical bonds, Lewis structure of compounds
7	Theoretical	Chemical formulas, chemical bonds, Lewis structure of compounds
8	Theoretical	Chemical formulas, chemical bonds, Lewis structure of compounds
9	Intermediate Exam	Mid-term exam
10	Theoretical	Concentrations of solutions
11	Theoretical	Concentrations of solutions
12	Theoretical	To prepare buffer solution
13	Theoretical	To prepare buffer solution
14	Theoretical	Aqueous solution reactions
15	Final Exam	Final exam

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Assignment	14	1	1	28
Midterm Examination	1	2	1	3
Final Examination	1	1	1	2
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

\*25 hour workload is accepted as 1 ECTS

#### Learning Outcomes

1	Analyze and demonstrate understanding of properties chemical matter and their states
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2	Be able to understand the basic principles of chemical reactions and solve chemistry problems of chemical reactions using mathematical tools.
3	Be able to learn the application of chemistry on daily life.
4	To be able to prepare percent solutions
5	Prepare solutions in different concentration units

### 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
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
P14	5	5	5	5	5
P15	5	5	5	5	5

