



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Laboratory Techniques and Instrumentation							
Course Code		TL307		Course 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 instrumentantation							
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 (Environmental Health)

1	They have the appropriate level of knowledge about the basic sciences which has an interaction with the environment and the environment itself.
2	They have gained the basic concepts, skills and qualifications in the Environmental health theoretical and practical lessons. And then they can establish the connections that are necessary to protect the environment and people's health in the light of these competencies.
3	They can use the approaches and the information of basic and applied research in different disciplines. They can follow the innovations and developments in their field, and have self-development competency with the terms of the day.
4	They know and apply the analysis methods used in the evaluation of environmental factors (drinking water, waste water treatment, air pollution, meteorological data, land values, food control, radiation measurement, etc.).
5	They have a professional and ethical consciousness, and have the ability to recognize the environmental problems and also can formulate a solution to these problems. They apply the gained knowledges and skills faced in real life situations, transfers the knowledge to individuals around, and wins the life-long learning behavior.
6	They are able to use their professional knowledge in their lives and behave sensitively toward the local and global environmental problems and effectively uses to the legislation and management tools the necessary for the solution.
7	Gained the ability to adapt the changing in a positive way themselves, to understand the core values and cultures of the society which are living. Sensitive to the universal and the social values, interests of the country, have adopted the concept of sustainable development, environmentally conscious, productive, behaves aware of the ethical and professional responsibility.
8	Provides a healthy interact of individual, society and the environment and take responsibility in the necessary situations for the continuity.
9	They gain the ecologically-based solving skills the problems and the delays that may arise in interaction with each other of living and nonliving environment. Interests of local and national, and Ecological and historical values of our country, and contribute to the protection and the development of them.
10	Exhibits the appropriate behaviours for the protection and the development of plants, animals, and inanimate environment, and the especially human health.
11	Knows the value of energy for life, recognizes the types of energy, and have conscious of the importance, using and dissemination of renewable energy sources.
12	Knows the properties of information and communication technologies, and uses them in the process efficiently and professionally.
13	They aware of the democracy, rule of law, human rights, the national and universal cultural characteristics, and sensitive towards to the nature, society and people.
14	Knows the importance of Atatürk's principles and reforms, make them a way of life.
15	Uses effectively the Turkish in speaking and writing.
16	Has at least one foreign language ability to be able to follow the knowledge in their profession and to communicate with colleagues.
17	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	3	3	3	3	3	3	3	3	3
P2	3	3	3	3	3	3	3	3	3
P3	4	4	4	4	4	4	4	4	4
P4	4	4	4	4	4	4	4	4	4
P5	4	4	4	4	4	4	4	4	4
P6	3	3	3	3	3	3	3	3	3
P7	3	3	3	3	3	3	3	3	3
P8	3	3	3	3	3	3	3	3	3
P9	4	4	4	4	4	4	4	4	4
P10	3	3	3	3	3	3	3	3	3
P11	3	3	3	3	3	3	3	3	3
P12	5	5	5	5	5	5	5	5	5
P13	3	3	3	3	3	3	3	3	3
P14	2	2	2	2	2	2	2	2	2



P15	5	5	5	5	5	5	5	5	5
P16	5	5	5	5	5	5	5	5	5

