



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

Course Title	Toxicology, Laboratory Methods of Analysis								
Course Code	TL302	Course Level			Short Cycle (Associate's Degree)				
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The aim is to educate participants with having the knowledge on the basic principles in toxicological analysis, methods and applications, interpretation of data. Its aimed to provide information about toxicity also the causes, diagnosis and treatment of toxication								
Course Content	Isolation of xenobiotics from various matrixes, qualitative and quantitative methods, optimization and validation of methods, evaluation of data, systematic toxicological analysis, quick systematic toxicological analysis in acute intoxications; define possible risks in laboratory and provide laboratory security.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Toksikoloji ,Prof.Dr.Nevin VURAL,Ankara Universitesi Eczacilik Fakültesi Yayınları No: 73, 2005
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to toxicology
2	Theoretical	Toxicological analysis methods
3	Theoretical	Isolation of toxicological analysis material from the samples.
4	Theoretical	Qualitative and quantitative methods used in toxicological analysis
5	Theoretical	Chromatographic methods and analysis of doping
6	Theoretical	Organophosphorus compounds poisoning and analysis methods
7	Theoretical	Anticoagulant rodenticides poisoning and analysis methods
8	Intermediate Exam	Mid-term exam
9	Theoretical	Mycotoxigenesis and analysis methods
10	Theoretical	Arsenic poisoning and analysis methods
11	Theoretical	Quick systematic toxicological analysis in acute intoxications
12	Theoretical	Possible risks in laboratory and laboratory security
13	Theoretical	Evaluation of data
14	Theoretical	Evaluation of data
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	14	0	1	14
Midterm Examination	1	1	2	3
Final Examination	1	0	2	2
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	1.He/She knows principles of sample selection, collection, transport and storage.
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2	2.He/She knows isolation of toxicological analysis material from the samples.
3	3.He/She knows principles of qualitative and quantitative methods used in toxicological analysis.
4	4.He/She knows and applies principles of quick systematic toxicological analysis in acute intoxications.
5	5.He/She applies spectroscopic and chromatographic methods in toxicological 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
P9	5	5	5	5	5
P10	5	5	5	5	5
P11	5	5	5	5	5

