



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Medical Laboratory and Safety							
Course Code		TL103		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To take personal precautions, to identify the risks of physical, chemical and biological factors and to take proper precautions for them while working in the laboratory							
Course Content		Use hazard signs in laboratory, Use the cabinets of biological safety, Take precautions against hazards by chemical, radioactive or in effective materials that are spilled on the body, Store the chemical matters, Take precautions for the hazards in result of bacteriologic material spills , Create a laboratory safety committee.							
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	70

### Recommended or Required Reading

1	1. Canel,M.(2003),Laboratuvar Güvenliği, A.Ü.Fen.Fak.Yayınları, Ankara Laboratuvar Klavuzları Uygulama
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Week	Weekly Detailed Course Contents	
1	Theoretical	Use hazard signs in laboratory To use gadgets designed to prevent laboratory hazards
2	Theoretical	Use the cabinets of biological safety
3	Theoretical	Use laboratory clothings Take precautions for the risks against eyes Take precautions for the risks against needle stings
4	Theoretical	Take precautions against hazards by chemical, radioactive or ineffective materials that are spilled on the body
5	Theoretical	Store the chemical matters Use hazardous chemical matters
6	Theoretical	Transfer various chemical matters Prevent the hazards in result of chemical matter spills
7	Theoretical	Take fire precautions in laboratory Take electrical hazard precautions in laboratory
8	Theoretical	Midterm exam
9	Theoretical	Take radioactive matter hazard precautions in laboratory Take precautions for the risks against natural disasters such as earthquakes, floods etc.
10	Theoretical	Take precautions for the hazards in result of bacteriologic material spills Take precautions for the hazards in result of virus included material spills
11	Theoretical	Take precautions for the possible bugs and rodents in laboratory
12	Theoretical	Create a laboratory safety committee
13	Theoretical	Set up a telephone network system for the possible laboratory hazards Make plans of extraordinary cases
14	Theoretical	Prepare a list of control for chemical factors Prepare a list of control for physical factors



15	Theoretical	Prepare a list of control for biological factors
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**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Midterm Examination	1	3	1	4
Final Examination	1	3	1	4
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

\*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

1	1. Identify the chemical hazards in laboratory and take precautions
2	2. Identify the physical hazards in laboratory and take precautions
3	3. Identify the biological hazards in laboratory and take precautions
4	4. Make safety organizations in laboratory
5	May write laboratory safety instructions

**Programme Outcomes (Medical Laboratory Techniques)**

1	Understands the basic operation, organization, and safety rules of the medical laboratory; takes personal safety precautions and ensures a safe laboratory environment.
2	Accepts samples in the medical laboratory, performs pre-analysis preparation, ensures proper transfer conditions, and delivers results.
3	Performs basic tests in various fields of the medical laboratory, prepares analytical solutions, and effectively uses devices and techniques involved in the analysis process.
4	Applies disinfection and sterilization techniques, ensures laboratory hygiene, and complies with waste management procedures.
5	Evaluates and interprets the results of analyses and prepares laboratory reports in accordance with professional ethical principles.
6	Possesses fundamental knowledge of health sciences and effectively uses medical terminology in professional applications.
7	Communicates effectively in healthcare services, works well in teams, and uses Turkish proficiently; has a basic level of foreign language proficiency in professional applications. Embraces Atatürk's principles and reforms, adopts national, moral, spiritual, and cultural values, and maintains an open perspective toward universal and contemporary developments.
8	Keeps up with advancements in science and technology, continuously updates professional knowledge and skills, and engages in self-improvement.
9	Is aware of individual and public health, environmental protection, and occupational safety issues and fulfills responsibilities in these areas.
10	Possesses awareness of career management and lifelong learning within an academic context.

