

AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Basic Laboratory Principles and Biochemical Methods							
Course Code		BYK504		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit 5	5	Workload	125 <i>(Hours)</i>	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		To learn basic laboratory principles and biochemical methods							
Course Content		Chemicals andrelated compounds, general laboratory supplies, types of samples, processing the samplesfor analysis, preanalytical, analytical variables. Photometer, chromatography, electrophoresis (cellulose acetate, polyacrylamide). Centrifuge. Absorbance Spectrometry - Fluorescence Spectroscopy (Principles and methods, devices and units, measurement methodology, biochemical applications)							
Work Placement N/		N/A							
Planned Learning Activities and Teaching Meth		Methods	Explanation Individual St	(Presenta tudy	tion), Experime	ent, Demonstra	ation, Discussior	١,	
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

- 1 Biochemical Methods:S Sadasivam,A. Manickam
- 2 biochemistry laboratory: rodney boyer

Week	Weekly Detailed Cours	Detailed Course Contents				
1	Practice	Basic laboratory rules, chemicals and general laboratory equipment				
2	Theoretical	Sample types, processing of samples for analysis, preanalytical and analytical variables				
3	Theoretical	Photometer				
4	Theoretical	Absorbance Spectroscopy				
5	Practice	Absorbance Spectroscopy				
6	Theoretical	Fluorescence Spectroscopy				
7	Practice	Fluorescence Spectroscopy				
8	Intermediate Exam	Quiz				
9	Theoretical	Chromatography				
10	Practice	Chromatography				
11	Theoretical	Electrophoresis				
12	Practice	Electrophoresis				
14	Practice	Practices				
15	Practice	Practices				
16	Final Exam	Final exam				

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload		
Lecture - Theory	8	1	3	32		
Lecture - Practice	6	1	3	24		
Assignment	9	1	6	63		
Individual Work	3	1	1	6		
	125					
	5					
*25 hour workload is accorded on 1 ECTS	25 hour workload is accounted on 1 ECTS					

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1 To learn basic laboratory rules, chemicals and general laboratory equipments



2	To have information about sample types, processing of samples for analysis, preanalytical and analytical variables					
3	To have information about photometer					
4	To have information about absorbance and fluorescence spectroscopy					
5	To have knowledge about chromotographic and electrophoretic methods					

Programme Outcomes (Biochemistry (Medical) Master)

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1	To have basic theoretical knowledge about biochemistry and to help understanding biochemistry						
2	To have the basic laboratory knowledge, apparatus and methods used in biochemistry						
3	Analysis: To be able to analyze information critically						
4	Synthesis: To be able to synthesize and adapt the knowledge in the field from different directions						
5	Evaluation: To critically evaluate research in the 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
	P1	4	5	4	5	4
	P2	4	4	4	5	5
	P3	4	4	4	4	5
	P4	5	4	5	4	4
	P5	4	4	5	4	4

