



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Application Fields of Chromatography in Biochemistry							
Course Code		VBY538		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Theory of chromatography, definition and general principle of chromatography, classification of chromatography, thinlayer chromatography, colon chromatography, paper chromatography, high performance liquid chromatography, gas chromatography, general detection methods.							
Course Content		Theory of chromatography, definition and general principle of chromatography, classification of chromatography, thinlayer chromatography, colon chromatography, paper chromatography, high performance liquid chromatography, gas chromatography, general detection methods.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration					
Name of Lecturer(s)		Lec. Gamze Sevri EKREN AŞICI							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Final Examination	1	100

Recommended or Required Reading

1	Biyokimya Güneş Tıp Kitapevi
2	Biyokimya Leninger
3	Biyokimya Lipinkot

Week	Weekly Detailed Course Contents	
1	Theoretical	Theory of chromatography, definitions and general principles
	Practice	Introduction of main laboratory
2	Theoretical	Classification of chromatography
	Practice	Learning about the devices
3	Theoretical	Technical features
	Practice	Preparation of application plan
4	Theoretical	Sources of errors, advantages and disadvantages
	Practice	Preparation of the necessary equipment and devices
5	Theoretical	Application areas
	Practice	Preparation of colones
6	Practice	Application
	Intermediate Exam	Midterm exam
7	Theoretical	Gel filtration chromatography
	Practice	Application
8	Theoretical	affinity chromatography
	Practice	Introduction to HPLC
9	Theoretical	Ion-exchange chromatography
	Practice	Preliminary preparation for HPLC
10	Theoretical	Gas chromatography
	Practice	Calibration
11	Practice	Application
	Intermediate Exam	Midterm exam
12	Theoretical	High Performance Liquid Chromatography
	Practice	Application
13	Theoretical	High Performance Liquid Chromatography
	Practice	Evaluation of results
14	Theoretical	Usage in researchs
	Practice	Discussion



15	Theoretical	Evaluation of results
	Practice	Assignment check
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	0	2	30
Lecture - Practice	15	0	2	30
Midterm Examination	1	4	1	5
Final Examination	1	9	1	10
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To be able to comprehend a general knowledge about cromatography
2	To be able to explain the principles of chromatography
3	To be able to comprehend knowledge about thinlayer chromatography
4	To be able to comprehend knowledge about High performance liquid chromatography
5	To be able to comprehend knowledge about gas chromatography
6	To be able to use the material learned effectively.

Programme Outcomes (Biochemistry (Veterinary Medicine) Master)

1	To be able to tell and describe the interdisciplinary interaction with the associated fields.
2	To be able to express original ideas using his/her higher education knowledge theoretically and practically information and to be able to creat original definations,products,methods improving and questioning these ideas.
3	To be able to manage a free research according to scientific and metodological methods and be able to hypothetically and practically about his/her own field.
4	To be able to compose and interpret the information from different disciplines, and create solution suggestions and scientific information which can contribute to the solution process.
5	To be able to involves in professional organizations and institutions related with the educational background.
6	To be able to take responsibility for individual and group work, and do the assignments in line with the skills.
7	To be able to communicate with the professionals out of the field when it is necessary, and contribute to the solution as a team member.
8	To be able to tell about the production and publishing methods of scientific information.
9	To be able to design the source and the type of information that is needed related with the field and chooses the activities that s/he wants to participate, by using his/her critical thinking abilities that is developed in the education.
10	To be able to use technological devices both for professional and social purposes.
11	To be able to compose and interpret any kind of data related with the field (field observations, produced scientific information etc.) and analyzes and interprets the results according to the aims of the research.
12	To be able to define the environmental health rules and apply them for prevention.
13	To be able to apply the knowledge gained in professional level with the awareness of the needs of the region and the country, and develop a defense capability.
14	To be able to conceptualize the phenomena and the events related with the field; study scientific methods and techniques, interpret results; analyze and hypothesize methods in accordance with the results and design solution or treatment alternatives addressing the problems.
15	To be able to interpret the updates of information in the field by using all kinds of sources (scientific information, legislations etc.), and use when needed.

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
P2	4	4	4			
P3	4	4	4			
P4	4	4	4	3		
P5					3	
P7				3		
P8	3	3	3		3	



P10				3		
P11	3	3	3		3	
P12					3	
P13					3	3
P14						3
P15	3	3	3			3

