AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Biochromatography								
Course Code	BYK523		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Learning biochromatography and its usage areas								
Course Content	Basic steps in biyochromatography, gel filtration, ion exchange biyochromatography, hydrophobic proteins (interaction) chromatography, affinity chromatography, dye ligand affinity chromatography, immobilized histidine ligand affinity chromatography, immobilized metal-ion affinity chromatography, thiophilic interaction chromatography, glycobiology and biochromatography, imprinted polymers as for the stationary phase in affinity purification, industrial biochromatography, biochromatography and biomedical applications								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Biochromatography: Theory and Practice:M. A. Vijayalakshmi

Week	Weekly Detailed Course Contents	
1	Theoretical	Chromatography and chromatography basics
2	Theoretical	Chromatography and chromatography basics
3	Theoretical	Biomolecules
4	Theoretical	Biomolecules
5	Theoretical	Introduction to biochromatography
6	Theoretical	Separation of biomolecules by ion exchange chromatography
7	Theoretical	Separation of biomolecules by hydrophobic interaction chromatography
8	Intermediate Exam	Quiz
9	Theoretical	Chromatographic separation of biomolecules by affinity chromatography
10	Theoretical	Immunoaffinity chromatography
11	Theoretical	Chromatographic separation of biomolecules by gel filtration chromatography
12	Theoretical	Chromatographic separation of biomolecules by immobilized metal affinity chromatography (IMAC)
13	Theoretical	Protein isolation techniques
14	Theoretical	Thin layer chromatography of proteins
16	Theoretical	Chromatographic separation of biomolecules by fast protein liquid chromatography (FPLC)

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Assignment	1	3	16	19
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To have knowledge about biomolecules
2	Having knowledge about biochromatography
3	To learn the principles and methods of chromatographic separation of biomolecules

4	To learn different chromatographic techniques for separation of biomolecules
5	Learning protein isolation techniques

Programme Outcomes *(Biochemistry (Medical) Master)*	
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	5	5	4
P2	5	4	4	5	4
P3	4	5	5	5	4
P4	5	4	4	5	5
P5	4	5	5	4	5