



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biochromatography							
Course Code		KİM561		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	6	Workload	156 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Aim of this course is to lecture the basic steps of biochromatography, to teach various biochromatographic techniques especially affinity chromatography and to teach the industrial biochromatography and biomedical applications.							
Course Content		Basic biochromatography steps, chromatography varieties and endustrial and biomedical applications.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	1	20

Recommended or Required Reading

1	1. Biochromatography, MA Vijayalakshmi, Taylor and Francis, 2002.
2	2. Lecture notes of lecturer

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic steps in biochromatography
2	Theoretical	Gel filtration
3	Theoretical	Ion-exchange interaction biochromatography
4	Theoretical	Hydrophobic (interaction) chromatography of proteins
5	Theoretical	Affinity chromatography
6	Theoretical	Dye ligand affinity chromatography
7	Theoretical	Immobilized histidine ligand affinity chromatography
8	Intermediate Exam	Midterm Exam
9	Theoretical	Immobilized metal-ion affinity chromatography
10	Theoretical	Thiophilic interaction chromatography, glycobiology and biochromatography
11	Theoretical	Imprinted polymers as a stationary phase in affinity purification
12	Theoretical	Industrial biochromatography
13	Theoretical	Biochromatography and biomedical applications
14	Theoretical	Student presentation
15	Theoretical	Student presentation
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	1	30	0	30
Midterm Examination	1	40	2	42
Final Examination	1	40	2	42
Total Workload (Hours)				156
[Total Workload (Hours) / 25*] = ECTS				6

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	to be able to recognize the chromatography concept and its history.
2	to be able to recognize the importance of the chromatography for biomolecules.
3	to be able to define the biochromatography varieties.
4	to be able to identify and discuss the industrial applications of biochromatography.
5	to be able to identify and discuss the clinical applications of biochromatography

Programme Outcomes (Chemistry Master)

1	To be able to gain proficiency in depths and analysis by statistical methods in the same or a related area depending on the undergraduate competence,.
2	To be able to use the knowledge of his/her field and the skills to solve problems and/or applications in interdisciplinary research.
3	To be able to adopt to evaluate the information and skill his/her field by critical approach.
4	To be able to evaluate the effect of important persons, case and fact on his/her field applications.
5	To be able to gain the ability to discuss write and orally present to a group of literate listener.
6	To be able to communicate orally and written in a foreign language at least at European language B2 level.
7	To be able to use computer programs related to his/her field and have skills for informatics communication.
8	To be able to be careful in protecting social, scientific and cultural ethics in collection data, application and presentation.
9	To be able to develop strategic, political and application plans in his/her field and may evaluate the outcomes in quality periods.

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
P3			5	5	5
P8	5	5	5	5	5

