



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Advanced Biochemistry							
Course Code		KİM553		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	9	Workload	229 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		the aim of this course is to elaborate the repetition and to put together the knowledge of Biochemistry course which is an undergraduate level course.							
Course Content		Proteins, carbohydrates, lipids, nucleic acids and metabolisms of these molecules.							
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 (%)
Final Examination	1	60
Quiz	5	20
Assignment	1	20

Recommended or Required Reading

1	Lehninger, Biyokimyanın İlkeleri, 2005, Nelson D.L., Cox M. M., ed. Nedret Kılıç. Palme Yayıncılık, Ankara ISBN 975-8982-18-4
2	D.Voet, J.G. Voet, Biochemistry, 1995, John Wiley ISBN 047158651X

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to biochemistry
2	Theoretical	Amino acids and proteins
3	Theoretical	Enzymes, coenzymes and vitamins
4	Theoretical	Carbohydrates
5	Theoretical	Nucleic acids
6	Theoretical	Lipids
7	Theoretical	Introduction to metabolism and energetics
8	Theoretical	Carbohydrate metabolism
9	Theoretical	Lipid metabolism
10	Theoretical	Protein biosynthesis and catabolism
11	Theoretical	Nucleic acid biosynthesis and catabolism
12	Theoretical	Regulation of metabolism
13	Theoretical	Photosynthesis
14	Theoretical	Membrane transport
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	50	0	50
Quiz	5	15	2	85
Final Examination	1	50	2	52
Total Workload (Hours)				229
[Total Workload (Hours) / 25*] = ECTS				9

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	to be able to recognize the chemical structures of biomolecules.
2	to be able to recognize the metabolisms of biomolecules.
3	to be able to acquire the basic biochemistry knowledge and develop capability of comment.
4	to be able to gain background information for the other biochemistry division courses.
5	to be able to acquire the develop capability of comment for biochemical process.

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

