



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Carbohydrate Biochemistry							
Course Code		BYK532		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		To have information about metabolism and metabolism disorders of carbohydrates							
Course Content		Structure, classification, properties and chemical reactions of carbohydrate. Regulation and metabolism of carbonhydrate, hormonal and enzymatic control of major intersections. Carbohydrate metabolism disorders. Integration of carbohydrate and lipid metabolism, relations between the organs in mammalian metabolism							
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	Lipincott Biochemistry
2	Fundamentals of Biochemistry H.P.Gajera, S.V.Patel, B.A.Golakiya
3	Carbohydrate Metabolism and Its Disorders Frank Dickens

Week	Weekly Detailed Course Contents	
1	Theoretical	Digestion and Absorption of Carbohydrates
2	Theoretical	Glucose Metabolism I
3	Theoretical	Glucose Metabolism II
4	Theoretical	Glucose Metabolism III
5	Theoretical	Glycogen Metabolism
6	Theoretical	Tricarboxylic (Citric Acid) Acid Cycle
7	Theoretical	Integration of carbohydrate and lipid metabolism
8	Theoretical	Quiz
9	Theoretical	Oxidative phosphorylation
10	Theoretical	Carbohydrate metabolism disorders and causes
11	Theoretical	Carbohydrate metabolism disorders and causes
12	Theoretical	Carbohydrate metabolism disorders and causes
13	Theoretical	Carbohydrate metabolism disorders and causes
14	Theoretical	Ketosis and its causes
15	Theoretical	Diabetes mellitus
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Assignment	1	1	18	19
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Learning the tasks of carbohydrates in the body and the tasks in energy metabolism
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2	To learn digestion and absorption of carbohydrates
3	Having knowledge about glucose metabolism
4	To learn carbohydrate metabolism disorders and their causes
5	Diabetes mellitus ve ketozis hakkında fikir sahibi olma

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	5	5	5	4	5
P2	4	5	5	5	4
P3	4	5	5	4	4
P4	5	4	5	4	5
P5	5	5	4	5	5

