## THE OXIDATIVE PHOSPHORYLATION AND MITOCHONDRIAL TRANSPORT SYSTEMS

			RT STSTEINS						
1	Course Title:		IDATIVE PHOSPHORYLATION AND MITOCHONDRIAL PORT SYSTEMS						
2	Course Code:	VBK602	0						
3	Type of Course:	Optional							
4	Level of Course:	Third Cy	cle						
5	Year of Study:	1							
6	Semester:	2							
7	ECTS Credits Allocated:	2.00							
8	Theoretical (hour/week):	1.00							
9	Practice (hour/week):	0.00							
10	Laboratory (hour/week):	0							
11	Prerequisites:	Yok							
12	Language:	Turkish							
13	Mode of Delivery:	Face to f	ace						
14	Course Coordinator:	Prof. Dr.	MELTEM TANRIVERDİ						
15	Course Lecturers:	-							
16	Contact information of the Course Coordinator:	0532 487	@uludag.edu.tr 75175 eriner Fakültesi Biyokimya ABD						
17	Website:								
18	Objective of the Course:	To be able to comprehend the use of products obtained in metabolic events in living organisms in energy generation							
19	Contribution of the Course to Professional Development: To establish a link between oxidative phosphorylation and metabolic events, Identify the disorders related to oxidative phosphorylation, To be able to transfer the knowledge gained on oxidative phosphorylation								
20	Learning Outcomes:								
		1	To be able to describe the properties of mitochondria where oxidative phosphorylation takes place						
		2	To be able to explain the enzyme systems and elements involved in oxidative phosphorylation						
		3	Understanding the factors that prevent oxidative phosphorylation						
		4	phosphorylation						
		5	5 To establish a link between oxidative phosphorylation and metabolic events						
		6	To be able to obtain new information about oxidative phosphorylation						
		7	Identify the disorders related to oxidative phosphorylation						
		8	To be able to transfer the knowledge gained on oxidative phosphorylation						
		9							
		10							
21	Course Content:								
		Co	urse Content:						
	Theoretical		Practice						
1	The properties of mitochondrial mem	nbrane							

2	Mito	chon	drial t	ranspo	ort me	chanis	ms												
3	Oxid	Oxidative phosphorylation																	
4	The components of the electron transport chain																		
5	NADH-Q reductase complex and coenzyme Q																		
6	Cyto	chro	mes																
7	Coup synti			ctrone	e trans	sport a	nd AT	P	Γ										
8	Unco	oupli	ng ag	ents															
9	ATP	synt	hesis	hypot	heses	;													
10	Cher	mios	motic	teori															
11	ATP	gain	in gly	/colysi	s and	TCA c	ycle												
12	ATP	gain	in ox	idatior	n of fa	tty acio	ls												
13	Gen	eral	overvi	ew of	topics	;													
14	Disc	ussio	on																
22	Mate	Textbooks, References and/or Other Materials:								Lehninger Principles of Biochemistry David L. Nelson, Michael M. Cox, 2005. Principles of Biochemistry, H. R. Horton, L. A. Moran, R. S. Ochs, J. D. Rawn, K. G. Scrimgeour, 2002. Biochemistry (5th edition) Berg JM., 2002. Metabolism at a Glance (At a Glance) D. K. Granner, J. G. Salway, 2004.									
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Contrib ution Level:	tion				2 low			3 Medium			4 High			5 Very High			
LO: Learning Objectives PQ: Program Qualifications																	
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ÖK7	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK6	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	
ÖK5	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK4	0	0	5	4	0	0	0	0	0	0	0	0	0	0	0	0	