NUCLEIC ACIDS AND NUCLEOTIDE METABOLISM

1	Course Title:	NUCLEIC ACIDS AND NUCLEOTIDE METABOLISM	
2	Course Code:	VBK6025	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:		
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. SAİME GÜZEL	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	saime@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	The aim of this course is to have knowledge about nucleotides and metabolic pathways affected by nucleotides, diseases related to nucleotides.	
19	Contribution of the Course to Professional Development:	Understanding the metabolism of nucleic acids and interpreting related metabolic diseases	
20	Learning Outcomes:		
		1	To be able to define the building blocks of nucleic acids
		2	To be able to explain the nucleotide synthesis mechanisms
		3	To be able to draw nucleotide degradation pathways
		4	To be able to analyze nucleotide metabolism disorders
		5	To be able to interpret the current literature on the subject
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Nucleoside-Nucleotide structure,	

2	Structure of Nucleic Acids	
3	Digestion of nucleic acids	
4	Purine biosynthesis	
5	Regulation of purine biosynthesis	
6	Purine catabolism	
7	Pyrimidine biosynthesis	
8	Regulation of pyrimidine biosynthesis	
9	Pyrimidine catabolism	
10	Polynucleotides (DNA-RNA)	
11	Synthesis of deoxyribonucleotides	
12	Inhibition of the synthesis of Purine and Pyrimidine nucleotides	
13	Nucleotide metabolism disorders	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	5.00	70.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	40.00	40.00
Total Work Load			152.00
Total work load / 30 hr			5.07
ECTS Credit of the Course			5.00

Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Measurement and evaluation are performed according to the Rules & Regulations of Bursa Uludağ University on Undergraduate Education.

edition,2010.

Biochemistry. Fifth edition, 2008.

J. Kennelly, Victor Rodwell, P. Anthony Weil Harpers Illustrated Biochemistry 29th Edition, 2012

Lippincott's Illustrated Reviews: Biochemistry, Pamela C. Champe Richard A. Harvey 2011

Marks Basic Medical Biochemistry; a clinical approach, Michael Lieberman Allan D. Marks 2009

24	ECTS / WORK LOAD TABLE

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	4	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	3	2	4	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**		**3 Medium**			**4 High**			**5 Very High**					