



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Nucleic Acid							
Course Code		VBY525		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Learn the structure and metabolism of nucleic acids							
Course Content		Nucleosides and nucleotides, nucleic acid structure of the metabolism and the synthesis, DNA replication, DNA and RNA Viruses, interferons eukaryotic and prokaryotic cells comparison of nucleic acid metabolism, recombinant DNA technology.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Lec. Gamze Sevre EKREN AŞICI, Prof. Serap ÜNÜBOL AYPAK							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Quiz	2	10
Assignment	2	10

### Recommended or Required Reading

1	Murray, R.K. (1993) Harper's Biochemistry, Appleton and Lange, Norwalk
2	Sittman, D. (2000) Biyokimya, çev. Güner G., Nobel, İstanbul.
3	Nihat BAYŞU, Nalan Bayşu SÖZBİLİR.(2008) Biyokimya Güneş Tıp kitabevleri, 2008

Week	Weekly Detailed Course Contents	
1	Theoretical	Structural units of nucleic acids
2	Theoretical	Nucleosides and nucleotides.
3	Theoretical	Biosynthesis of purine and pyrimidine bases
4	Theoretical	Degradation of purine and nucleoproteins and nucleic Aiste digested
5	Intermediate Exam	Midterm exam
6	Theoretical	Degradation of purine and pyrimidine bases
7	Theoretical	Nucleotides and nucleic acids, polynukleotides
8	Theoretical	Biosynthesis of RNA and DNA
9	Theoretical	DNA and RNA Viruses
10	Intermediate Exam	Midterm exam
11	Theoretical	Interferons
12	Theoretical	DNA replication
13	Theoretical	Replicating DNA
14	Theoretical	Comparison of eukaryotic and prokaryotic cells, nucleic acid metabolism
15	Theoretical	Recombinant DNA technology
16	Final Exam	Final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Quiz	2	2	0.5	5
Midterm Examination	1	5	1	6



Final Examination	1	10	1	11
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	To be able to comprehend the structural units of nucleic acids
2	To be able to recognize the nucleoside and nucleotides, purine and pyrimidine bases to learn biosynthesis.
3	To be able to comprehend the biosynthesis of RNA and DNA .
4	To be able to comprehend how replication has occurred.
5	To be able to compare the nucleic acid metabolism of eukaryotic and prokaryotic cells.
6	To be able to explain recombinant DNA technology.

### Programme Outcomes (Biochemistry (Veterinary Medicine) Master)

1	To be able to tell and describe the interdisciplinary interaction with the associated fields.
2	To be able to express original ideas using his/her higher education knowledge theoretically and practically information and to be able to creat original definations,products,methods improving and questioning these ideas.
3	To be able to manage a free research according to scientific and metodological methods and be able to hypothetically and practically about his/her own field.
4	To be able to compose and interpret the information from different disciplines, and create solution suggestions and scientific information which can contribute to the solution process.
5	To be able to involves in professional organizations and institutions related with the educational background.
6	To be able to take responsibility for individual and group work, and do the assignments in line with the skills.
7	To be able to communicate with the professionals out of the field when it is necessary, and contribute to the solution as a team member.
8	To be able to tell about the production and publishing methods of scientific information.
9	To be able to design the source and the type of information that is needed related with the field and chooses the activities that s/he wants to participate, by using his/her critical thinking abilities that is developed in the education.
10	To be able to use technological devices both for professional and social purposes.
11	To be able to compose and interpret any kind of data related with the field (field observations, produced scientific information etc.) and analyzes and interprets the results according to the aims of the research.
12	To be able to define the environmental health rules and apply them for prevention.
13	To be able to apply the knowledge gained in professional level with the awareness of the needs of the region and the country, and develop a defense capability.
14	To be able to conceptualize the phenomena and the events related with the field; study scientific methods and techniques, interpret results; analyze and hypothesize methods in accordance with the results and design solution or treatment alternatives addressing the problems.
15	To be able to interpret the updates of information in the field by using all kinds of sources (scientific information, legislations etc.), and use when needed.

### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4
P2	5	5	5	5
P4				4
P9				5
P13	4	4	4	4

