



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Nucleic Acids Metabolism							
Course Code		TBY425		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	76 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Nucleic acids, purine and pyrimidine nucleotides and learn metabolic synthesis of deoxyribonucleotides, nucleotide synthesis of understanding inhibitors and private; regulatory mechanisms, to grasp the importance of the regulation of nucleotide biosynthesis, learn the synthesis of specific regulating molecules, the nucleotide catabolism and to understand the importance of cellular metabolism.							
Course Content		DNA and RNA structure, DNA replication, RNA synthesis, breakdown and synthesis of purines and pyrimidines, transcription and translation mechanisms.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Problem Solving					
Name of Lecturer(s)		Lec. Evrim ELÇİN							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	From Nucleic Acids Sequences to Molecular Medicine, ditors: Erdmann (Deceased), Volker A., Barciszewski, Jan (Eds.)
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Week	Weekly Detailed Course Contents	
1	Theoretical	The chemical of DNA and RNA
2	Theoretical	DNA biosynthesis
3	Theoretical	DNA destruction
4	Theoretical	DNA mutation and repair
5	Theoretical	DNA mutation and repair
6	Theoretical	The structure of RNA
7	Theoretical	RNA types
8	Theoretical	mRNA destruction
9	Intermediate Exam	Midterm exam
10	Theoretical	The processing of RNA
11	Theoretical	Transcription
12	Theoretical	Translasyon
13	Theoretical	Posttranscriptional modifications
14	Theoretical	Posttranscriptional modifications
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Midterm Examination	1	2	1	3
Final Examination	1	2	1	3
Total Workload (Hours)				76
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	The structure and chemistry of nucleic acid can be knowledge
2	Synthesis of nucleic acids, destruction, repair and understand information about the control of these mechanisms
3	Explain the structure and functions of nucleic acids.



4	Discuss the synthesis methods of nucleic acids.
5	RNA and editing mechanism

Programme Outcomes (Agricultural Biotechnology)

1	To be able to develop skills in identifying, modeling and solving problems in agricultural biotechnology
2	To be able to synthesize life and engineering sciences for the effective resource planning of agricultural biotechnology applications
3	To be able to interpret about living organisms structure, metabolic and physiological processes in order to propose biotechnological solutions to the agricultural problems
4	To be able to analyze genomic, metabolomic and proteomic information via bioinformatic tools.
5	To have the ability to analyze collected data and interpret the results.
6	To have the ability of individual working ability and to make independent decisions, to work in inter-disciplinary and interdisciplinary teamwork, to communicate by expressing their ideas orally and in writing, clearly and concisely
7	To have the awareness of professional liabilities and ethics
8	To be able to follow current national and international problems

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	4	4	4	5	5
P2	3	3	4	5	5
P3	4	4	5	5	5
P4	5	5	5	5	5
P5	4	2	3	3	3
P6	2	2	3	3	3
P7	2	2	2	2	2
P8	2	2	2	2	2

