



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Molecular Biology							
Course Code		BB203		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To acquire knowledge about molecular biology of the second grade students at the Faculty of Agriculture							
Course Content		To give information about cell, organs, synthesis of DNA, RNA, and protein, gene transfer, and molecular techniques							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Prof. Zeynel DALKILIÇ							

Prerequisites & Co-requisites

Prerequisite	TB104
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Assessment Methods and Criteria

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

Recommended or Required Reading

1	Yıldırım A., Bardakçı F., Karataş M., Tanyolaç B. 2007. Moleküler Biyoloji. Nobel Yayın No:1170, Nobel Bilim ve Araştırma Merkezi Yayın No:2, Fen ve Biyoloji Yayınları Dizisi:39, Ankara, 613s.
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction, biomolecules and the cell
2	Theoretical	Nucleic acids
3	Theoretical	DNA replication and repair
4	Theoretical	Gene and genome structure
5	Theoretical	Gene expression: transcription
6	Theoretical	Protein synthesis and dissociation
7	Theoretical	Enzymes
8	Theoretical	Mutations and mutagenesis
9	Theoretical	Structure and function of plasma membrane
10	Intermediate Exam	Midterm Exam
11	Theoretical	Cell signalling mechanisms
12	Theoretical	Apoptosis
13	Theoretical	Recombinant DNA technology
14	Theoretical	Molecular biology techniques I: nucleic acid analyses
15	Theoretical	Molecular biology techniques II: protein analyses
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Midterm Examination	1	3	1	4
Final Examination	1	3	1	4
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 molecular biology
2	To be able to comprehend the structure and function of nucleic acids and proteins in molecular biology
3	To be able to comprehend analysis techniques of nucleic acids and proteins used in molecular biology
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Programme Outcomes (Horticulture)

1	Ability to examine agricultural problems under the light of basic science, mathematics, and agriculture knowledge
2	Ability to plan and apply in different agricultural systems in horticultural crop plants
3	To constitute and realize breeding programmes according to market demands
4	Ability to propagate any kinds of stock materials in horticultural crop plants
5	Ability of transfer of modern technologies to production
6	Ability to have a consciousness of quality in production, storage, and evaluation in horticultural crop plants (To measure, evaluate, and manage different quality parameters)
7	To think analytically of protecting, providing transfer to future, and having responsibility to environment of all plant materials belong to horticultural crop plants area
8	Ability to search, think analytically, reach to knowledge, and obtain solution for solving of agricultural problems (Project, homework, thesis, summer training)
9	Ability to be aware of agricultural problems, to follow them, and to communicate own ideas of these subjects by verbal and written ways (Turkish, social course)
10	To be able to perform in a teamwork
11	Ability to work independently, give decision, and Express own thoughts by occupational-ethic values verbal and written ways in horticultural crop plants
12	Ability to think creatively, innovatively, and analytically, to comprehend the need of lifelong learning, be a part of a related subjects in a web of communication, and to develop by social means

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	5	5
P2	1	1	1	1	1
P3	4	3	3	3	3
P4	1	1	1	1	1
P5	4	4	5	5	5
P6	1	1	1	2	2
P7	1	1	2	1	1
P8	3	3	3	4	4
P9	4	1	1	1	1
P10	1	1	1	3	3
P11	3	1	1	3	3
P12	5	4	4	4	4

