



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biotechnology							
Course Code		TBY205		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	70 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Definitions and concepts in Biotechnology. Biotechnology in production. To examine the relationship of Biotechnology with other disciplines at the undergraduate level.							
Course Content		What is Biotechnology and Agricultural Biotechnology? Introduction to Genes and Genomes. Recombinant DNA Technology and Genomics. Plant Biotechnology. Animal Biotechnology. Biotechnology legislations. Ethics and Biotechnology							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Lec. Zühal GÜNDÜZ							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Introduction to Biotechnology, Thieman WJ, Palladino MA, Palme Press, 2013
---	--

Week	Weekly Detailed Course Contents	
1	Theoretical	What is Biotechnology and Agricultural Biotechnology?
2	Theoretical	Introduction to Genes and Genomes
3	Theoretical	Recombinant DNA Technology and Genomics
4	Theoretical	Proteins as a product
5	Theoretical	Plant Biotechnology
6	Theoretical	Biotechnology in Seed Industry
7	Theoretical	Animal Biotechnology
8	Intermediate Exam	Midterm Exam
9	Theoretical	Bioinformatics
10	Theoretical	DNA fingerprinting studies
11	Theoretical	Bioremediation
12	Theoretical	Biotechnology in Medicine
13	Theoretical	Genetically Modified Organisms
14	Theoretical	Biotechnology legislations
15	Theoretical	Ethics and Biotechnology
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Midterm Examination	1	6	1	7
Final Examination	1	6	1	7
Total Workload (Hours)				70
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To teach definitions and concepts in Biotechnology.
2	To teach Biotechnology in production.



3	To teach the relationship of Biotechnology with other disciplines.
4	Relate biotechnology and agricultural sciences
5	Relate biotechnology and health sciences

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	5	5	5	5	5
P5	5	5	5	5	5

