AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Biotechnology								
Course Code	TBY205		Couse 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 *(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	3	5	4	5
P2	5	4	4	5	5
P3	3	4	3	5	5
P4	5	4	3	5	5
P5	4	5	4	3	5
P6	5	5	5	4	5
P7	4	5	5	4	4
P8	4	4	5	5	4