



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
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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 (Dairy Technology)

1	Having sufficient infrastructure in basic sciences and engineering subjects and ability to use the theoretical and applied info instantly in this field.
2	Determining the modern techniques, tools and information technologies required for applications related with his field and ability to use them efficiently
3	Ability for planning, projecting, and designing, following up, analyzing and finding target-driven solutions related with his field
4	Ability to have professional ethic and awareness.
5	Ability to work, decide, express opinions orally and in written individually
6	Ability to participate team studies, taking responsibility, making leadership.
7	Ability to conceive Atatürk's principles and reforms, to communicate in Turkish and foreign language.
8	Ability to comprehend the necessity to learn for a life time, to monitor developments in science and technology and continuously renew himself.
9	Having sufficient level of information about production and quality control of milk and dairy products and also product development, increasing product quality and food security fields.
10	Ability to detect, define, solve problems related with his field and to select and apply suitable methods and modeling techniques for this purpose.
11	To be conscious about workplace applications, worker health, work security and environment subjects, to have knowledge about legal results of the engineering applications related with his subject.

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

	L1	L2	L3	L4	L5
P8	4	4	4	4	4
P9	4	4	4	4	4

