



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biotechnology and Gm Products							
Course Code		ÇS307		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Below topics have been targeted: 1. Nowadays, the use and importance of biotechnology; 2. Production of transgenic products/living things, and Features of the GM technology; 3. Importance of GM products in terms of environment and human.							
Course Content		Development of biotechnology/nanotechnology, and use of them in variety fields. The living things/products are produced by GM technology, producing countries, and possible effects of them on human health/environment. The studies are performed in this field in our country and world.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Individual Study					
Name of Lecturer(s)		Lec. Sevil ÖZCAN							

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Prof. Dr. Selim Çetiner, What is Genetically Modified Organism (GMO)? Questions and Answers-1, Sabancı University Faculty of Engineering and Natural Sciences Tuzla, İstanbul)
2	Prof. Dr. Kemal GÜVEN, Genetically Modified Organisms, Dicle university Molecular Biology Department Manager
3	Heredity and Evolution (2007) Ali Demirsoy, Meteksan

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic concepts such as chromosome, gene, genome, etc.
2	Theoretical	What is the Mutation? Chromosomal mutations and reasons.
3	Theoretical	What are the Biotechnology and Nanotechnology? Their importance in our daily life.
4	Theoretical	Development of the Biotechnology, and its importance for genome Project.
5	Theoretical	GMO technology, and its applications.
6	Theoretical	Why are GMO products required?
7	Theoretical	Use of the GMO technology in agriculture.
8	Theoretical	Midterm
9	Theoretical	Use of the GMO technology in medicine.
10	Theoretical	Use of the GMO technology in food.
11	Theoretical	The benefits/The harms of the GMO products.
12	Theoretical	The products that are produced using of GMO technology, and the countries which are using this technology mostly.
13	Theoretical	Countries which have banned the producing of the GMO products, and reasons of them.
14	Theoretical	The status of GMO products in our country.
15	Theoretical	The biosafety protocol.

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Midterm Examination	1	2	1	3



Final Examination	1	4	1	5
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Define the Biotechnology and GMO technology.
2	Know the products that produced by GM technology.
3	Know the potential impact of GM corps for human and environment.
4	Explain the effects of GMO products on human health.
5	Knows the use of GMO technology in the health field.

### Programme Outcomes (Anesthesia )

1	To be able to recall basic knowledge about human anatomy
2	To be able to recall the knowledge about Atatürk's principles and the history of Turkish Revolution
3	To be able to recall the knowledge about ethical and moral values
4	To be able to recall the knowledge of Turkish grammar and be able to use it
5	To be able to communicate effectively with patient, their family, and own team
6	To be able to control, use, and maintain the anesthesia machines
7	To be able to recall the information about anesthesia application in the system diseases
8	To be able to recall the issues that needed to be considered in follow-up of patients in intensive care.
9	To be able to make the patients' care in intensive care
10	To be able to apply the cardiopulmonary resuscitation.
11	To be able to apply the drug, liquid and blood to the patient.
12	To be able to apply nasogastric tube to the patient and to aspirate.
13	To be able to assist the implementation of general anesthesia to patient.
14	To be able to recall the drugs used in general and regional anesthesia and learn to use them safely.
15	PO15. Can help during the maintenance, ending and post anaesthesia process.
16	Can help the practices of anesthesia and sedation outside the operation room.
17	Can communicate at the basic level of a foreign language and use this language in his job.
18	Be able to communicate at a basic level in a foreign language and be able to use this language in professional fields
19	To have the appropriate knowledge of basic sciences at the level of interest, to use specific medical terms and terminology of field

### 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	4	4
P2	3	3	3	3	3
P3	5	4	5	5	5
P4	4	4	4	4	4
P5	2	2	2	2	2
P6	3	3	3	3	3
P7	3	3	3	3	3
P8	1	1	1	1	1
P9	1	1	1	1	1
P10	1	1	1	1	1
P11	1	1	1	1	1
P12	1	1	1	1	1
P13	1	1	1	1	1
P14	1	1	1	1	3
P15	1	1	1	1	3
P16	1	1	1	1	3
P17	1	1	1	1	3
P18	4	5	5	4	4

