



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Genetically Modified Organism							
Course Code		LBT227		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		It is the objective of this course to enable the undergraduate students to understand the production of genetically modified organisms (GMO), application areas of GMO, the biosafety and food safety legislations.							
Course Content		Gene transfer methods, gene transfer in different organisms, biotechnological applications in agricultural and medical field							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Bayraç, A.T., Kalemtaş, G., Baloğlu, M.C., Kavas, M., 2011. Genetiği Değiştirilmiş Organizmalar. ISBN: 978-9944-344-30-2
2	Aslan, D., Şengelen, M., 2010. Farklı Boyutlarıyla Genetiği Değiştirilmiş Organizmalar Ankara Tabip Odası
3	Poindron P., 2012. Genetically Modified Organisms and Genetic Engineering in Research and Therapy" Editor(s): Piguet P" ISBN: 978-3-8055-9065-5.
4	National Research Council, 1989. Field Testing Genetically Modified Organisms. The National Academies Press. ISBN:978-0-309-04076-1
5	Topal, Ş. 2006. Biyogüvenlik ve Biyoteknoloji, Cemturan Ofset Matbaası

Week	Weekly Detailed Course Contents	
1	Theoretical	Genetically modified organisms (GMOs) history and description
2	Theoretical	Gene transfer methods
3	Theoretical	Gene transfer methods
4	Theoretical	General information about transgenic organisms
5	Theoretical	Development of GMOs
6	Theoretical	Transgenic mammal farm animal production and application fields
7	Theoretical	Transgenic plant production and application fields
8	Intermediate Exam	Midterm Exam
9	Theoretical	Transgenic microorganism and application fields
10	Theoretical	The use of GMOs in medical and food science area
11	Theoretical	Disease model transgenic laboratory animals and application areas
12	Theoretical	Other transgenic animals (primate, chicken, fish, insect)
13	Theoretical	National and international regulations in production and trade of GMOs
14	Theoretical	Biosecurity and food safety rules, ethical issues about transgenic organism
15	Theoretical	Biosecurity and food safety rules, ethical issues about transgenic organism
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	14	0	1	14
Midterm Examination	1	7	1	8



Final Examination	1	10	1	11
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Having the knowledge and awareness of genetically modified organism (GMO) and application of GMO
2	Gene transfer methods
3	To know the purposes of production and application areas of transgenic organism
4	To know arrangements need to be considered in the production of transgenic organisms
5	To learn National and international regulations in production and trade of GMOs

Programme Outcomes (Organic Agriculture)

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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
P9	5	5	5	5	5
P11	3	3	3	3	3

