



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Genotoxicology							
Course Code		BİO632		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	172 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Genotoxicity, mutagenicity and carcinogenicity with the concepts and their implications, to teach methods of detection.							
Course Content		Genotoxicity, mutagenicity and carcinogenicity concepts and their effects, methods of detection							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	R.Marcos, B.Kaya (2001). Course on genetic toxicology, kurs notları, Akdeniz Üniv. Fen-edeb. Fak. Biyoloji Böl.
2	Waters.D.M. Genetic toxicology of complex mixtures. Plenum Press, 1990
3	Grover, L.P. Chemical Carcinogens and DNA. CRC. Press, 1979

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to genotoxicology
2	Theoretical	Genotoxic agents
3	Theoretical	Environmental effects of genotoxin (eco-genotoxicology)
4	Theoretical	Causes cellular DNA damage, DNA repair
5	Theoretical	Examination of oxidative DNA damage
6	Theoretical	in vitro genotoxic test materials
7	Theoretical	Measurement of reversible Genotoxic effects in vivo
8	Intermediate Exam	Midterm exam
9	Theoretical	Affects the level of chromosomal
10	Theoretical	Affects the level of genes
11	Theoretical	Biotechnological applications in Genotoxicology
12	Theoretical	Genotoxicology studies in the use of the comet assay
13	Theoretical	Genetic toxicology goals, determination of genetic risks
14	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	4	2	90
Assignment	10	5	0	50
Midterm Examination	1	15	1	16
Final Examination	1	15	1	16
Total Workload (Hours)				172
[Total Workload (Hours) / 25*] = ECTS				7

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Learning genetic toxicology
2	Learning the environmental impact of genotoxin learning
3	Learning genotoxic in vitro test methods



4	Learning biotechnological applications in genotoxicology
5	Learning to be identified genetic risk

Programme Outcomes (Biology Doctorate)

1	To have enough scientific background knowledge towards a specific study and research area
2	To have an ability to identify, evaluate and develop a solution for a problem on biological aspects
3	To be able to evaluate scientific observations and results of experiments using statistical analysis methods
4	To have basic skills in areas related to field of biological studies
5	To have the ability to develop cooperation with different disciplines with the high level of social communication required for studies
6	To have knowledge of technology and use of methods and means used in biological researches
7	To have an ethical understanding which will be a guide for their investigations and publications
8	For PhD; to have European Language Portfolio C1 general level language skill
9	To be able to present and discuss own research results in accordance with scientific discipline using technological tools in scientific research environments
10	To be able to detect and evaluate economic and social impacts of an own original research results
11	To be equipped with ability of carrying out independent study in biological field
12	To be able to publish at least one an international/national peer reviewed scientific paper and/or produce or interpret an original work related to biology in order to expand the frontiers of knowledge
13	To be able to develop new approaches or adaptations to be used in solving scientific and biological problems
14	To be able to develop new understanding and approaches in order to explain a new phenomenon or a biological event under investigation
15	To have abilities and experience to create new search area through inspiration gained from subject searched

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	4		4
P3			3	3	3
P4	4	4	4	4	4
P5					3
P6	3				
P9	4		3		
P10		4		3	4
P12				4	
P13	4				
P14		4	4		
P15	4				

