



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Chemical Mutagenesis							
Course Code		BİO631		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	172 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		To give information about research of mutations, methods of mutagenesis tests, the comutagens and antimutagens							
Course Content		Methods of mutagenesis tests, comutagens and antimutagens.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case 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	Ders notları
2	Internet

Week	Weekly Detailed Course Contents	
1	Theoretical	The hisory and duty of mutation searches
2	Theoretical	Prevention of mutations and their repairing system
3	Theoretical	Methods of mutagenity tests, dominant-lethal test
4	Theoretical	Intraanimal culture of micoorganisms
5	Theoretical	In vivo observations, Drosophila, Fanerogams
6	Theoretical	In vitro methods, human and mammalian cell cultures
7	Theoretical	Test methods in low eucaryotic and procaryotic organisms
8	Theoretical	Chemical mutagens, forming radicals
9	Theoretical	Nucleic asit antimetabolites, metals and metal organic compounds
10	Theoretical	The indicators of mutagenic effects: structure-effect relationship, the difference of sensitivity
11	Theoretical	Comutagens
12	Theoretical	Antimutagens
13	Theoretical	Antimutagens
14	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	2	3	65
Lecture - Practice	13	2	3	65
Assignment	2	2	2	8
Laboratory	10	1	2	30
Midterm Examination	1	1	1	2
Final Examination	1	1	1	2
Total Workload (Hours)				172
[Total Workload (Hours) / 25*] = ECTS				7

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	1. To obtain information about mutations and the history of mutation researches.
2	2. Mutagenicity test methods provide basic information about the acquisition of



3	3. To provide the acquisition of basic information about mutagenicity testing methods.
4	4. To learn methods of in vitro, human and mammalian cell culture techniques .
5	5. Learning about chemical mutagens
6	6. To give information about the determinants of mutagenic effect and determinants of structure-activity.
7	7. Learning of komutagens and antimutagens.

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	L6	L7
P2	4	4					
P3	4	4	5	5			
P5	4	5	5	5	5	5	
P6							2
P8					4	4	
P10	5	5	4	4	5	5	

