



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Ecotoxicology							
Course Code		ZBK505		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	196 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		examining the place and importance of ecotoxicology in modern environmental sciences and use of ecotoxicology in environmental chemistry, toxicology, ecology.							
Course Content		The source of environmental pollution with consideration of agricultural pollution and their direct and indirect effect on organisms from individual to ecosystem will be explained. The interaction of organisms with their habitus in environment will be explained.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion					
Name of Lecturer(s)		Prof. Cafer TURGUT							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Satake, M., Mido, Y., Sethi, M. S. Iqbal, S. A. Yasuhisa, H., Taguchi, S. (2006): Environmental Toxicology. Discovery Publishing. ISBN 81-7141-350-1
2	Connell, D., Lam, P. (1999): Introduction to Ecotoxicology. Blackwell Science
3	Oehlmann, J., Markert, B. (1997): Humantoxikologie. Wissenschaftliche Verlagsgesellschaft.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
	Preparation Work	Basic ecotoxicological procedures in lab
2	Theoretical	Interaction of ecotoxicology with environmental chemistr
	Preparation Work	Basic calculation methods in ecotoxicology
3	Theoretical	General principles of ecotoxicology
	Preparation Work	Standard solvent preparation
4	Theoretical	Effect of biological uptake factors to ecotoxicology
	Preparation Work	Dose calculation
5	Theoretical	Fate of environmental chemicals in organisms
	Preparation Work	Dose response curves
6	Theoretical	Ecotoxicological experimental methods and test systems
	Preparation Work	Evaluation of statistical results in lab
7	Theoretical	Bioaccumulation
	Preparation Work	Introduction to microtox system
8	Intermediate Exam	Mid-Term Exam
9	Theoretical	Molecular effect mechanisms and effect on cells
	Preparation Work	Bioassay in microtox with a low toxicity pesticide
10	Theoretical	Effect on individual and population
	Preparation Work	Bioassay in microtox with a middle toxicity pesticide
11	Theoretical	Effect on habitate and ecosystem
	Preparation Work	Bioassay in microtox with a high toxicity pesticide
12	Theoretical	Practical approach of ecotoxicology
	Preparation Work	Evaluation of results
13	Theoretical	Risk assessment 1
	Preparation Work	EC50 calculations
14	Theoretical	Risk assessment 2
15	Theoretical	General review



16	Final Exam	Final Exam
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Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Lecture - Practice	14	3	2	70
Midterm Examination	1	28	1	29
Final Examination	1	40	1	41
Total Workload (Hours)				196
[Total Workload (Hours) / 25*] = ECTS				8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	to be able to recognize the effects of environmental chemicals in ecotoxicology
2	to be able to estimate the effects of environmental chemicals on organisms
3	to be able to recognize the molecular effect mechanism
4	to be able to have the ability of risk estimation
5	

Programme Outcomes (Plant Protection Master)

1	To develop knowledge and abilities that gained during undergraduate education
2	To gain ability to search and pursue current literature
3	To gain ability to plan and write projects that help solving problems in field of study.
4	To gain ability to conduct research, analyze data, evaluate research results scientifically and prepare reports and thesis writing.
5	Students will be able to learn and apply the laboratory test and analysis methods
6	To recognize occupational and ethical responsibility

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
P2	4	4	4	4	4
P3	5	5	5	5	5
P4	2	3	5	4	3
P5	5	5	5	5	5
P6	4	4	4	4	4

