



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Chromatographic Pesticide Analysis							
Course Code		ZBK557		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	9	Workload	228 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Introduction to pesticide groups, basic principles of pesticide analysis							
Course Content		Extraction methods, general principles of chromatography, chromatographic techniques, gas chromatography, high performance liquid chromatography							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), 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	Handa, S. K. (2004): Principles of pesticide chemistry. Agrobios.
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
	Preparation Work	General principles of laboratory use
2	Theoretical	Introduction of pesticide groups
	Preparation Work	Preparation of standards
3	Theoretical	Introduction of pesticide groups
	Preparation Work	Preparation of standards
4	Theoretical	Extraction methods of pesticides
	Preparation Work	Extraction studies
5	Theoretical	Extraction methods of pesticides
	Preparation Work	Rapid extraction techniques
6	Theoretical	Extraction methods of pesticides
	Preparation Work	Rapid extraction techniques
7	Theoretical	EXAM
8	Theoretical	Introduction of chromatographic pesticide analysis
	Preparation Work	introduction of chromatographic analysis
9	Theoretical	Gas Chromatography/Mass Spectrometry
	Preparation Work	GC injection methods and methods development
10	Theoretical	Gas Chromatography/Mass Spectrometry
	Preparation Work	Analytical methods and evaluation
11	Theoretical	High performance liquid chromatography
	Preparation Work	HPLC injection methods and methods development
12	Theoretical	High performance liquid chromatography
	Preparation Work	Analytical methods and evaluation
13	Theoretical	Evaluation of results
14	Theoretical	Calculation
15	Theoretical	General Review
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	4	2	84



Lecture - Practice	14	4	2	84
Midterm Examination	1	26	1	27
Final Examination	1	32	1	33
Total Workload (Hours)				228
[Total Workload (Hours) / 25*] = ECTS				9
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	to be able to recognize the groups of pesticides
2	to be able to identify the extraction methods
3	to be able to recognize the analysis methods
4	to be able to evaluate the concentrations
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	5	5	5	5	5
P3	5	5	5	5	5
P4	5	4	3	4	3
P5	3	3	3	4	3
P6	4	4	4	4	4

