AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Plant Analysis Methods						
Course Code	TBY317		Couse Level		First Cycle (Bachelor's Degree)		
ECTS Credit	4	Workload	103 *(Hours)*	Theory	2	Practice	0	Laboratory	2
Objectives of the Course	Having information about the various methods of analysis applied to crops to capture the quality and standards in plant production						
Course Content	Methods of analysis used to determine the lack of fertilizers, physical analysis made in seeds, drug residue analyzes, various chemical analyzes made in seeds, molecular-based analysis						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Discussion						
Name of Lecturer(s)	Assoc. Prof. Yelda EMEK						

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Kacar, Burhan. Kolay Uygulanabilir Bitki Analizleri - Bitki, Toprak ve Gübre Analizleri: 2. Nobel Akademik Yayıncılık
2	Uzun F. Tarla Bitkilerinde Laboratuvar Analizleri (Uygulama Notları). Ondokuz Mayıs Üniversitesi

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction: The importance of plant analysis
2	Theoretical	The conditions for success in plant analysis
3	Theoretical	Analysis methods used in the determination of macro nutrients deficiency in plants
4	Theoretical	Analysis methods used in the determination of micro nutrients deficiency in plants
5	Theoretical	Sampling in plants
6	Theoretical	Preparation for analysis of plant samples
7	Theoretical	Physical analysis in plant seeds
8	Intermediate Exam	Midterm exam
9	Theoretical	Chemical analysis in plant seeds
10	Theoretical	Analysis of fatty and fatty acids analysis
11	Theoretical	Plant hormones and their effects
12	Theoretical	Drug residue analysis
13	Theoretical	Molecular based analysis 1
14	Theoretical	Molecular based analysis 2
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	2	2	52
Lecture - Practice	13	2	1	39
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
			Total Workload (Hours)	103
			[Total Workload (Hours) / 25*] = **ECTS**	4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Students will have information about the lack of fertilizer and symptoms in plants
2	Students will have information about guality analysis in plants

3	Have knowledge about the preparation of plant analysis
4	To have knowledge about residue analysis in plant products
5	Have knowledge about biotechnological analysis in plants

Programme Outcomes *(Agricultural Biotechnology)*

1	To be able to develop skills in identifying, modeling and solving problems in agricultural biotechnology
2	To be able to synthesize life and engineering sciences for the effective resource planning of agricultural biotechnology applications
3	To be able to interpret about living organisms structure, metabolic and physiological processes in order to propose biotechnological solutions to the agricultural problems
4	To be able to analyze genomic, metabolomic and proteomic information via bioinformatic tools.
5	To have the ability to analyze collected data and interpret the results.
6	To have the ability of individual working ability and to make independent decisions, to work in inter-disciplinary and interdisciplinary teamwork, to communicate by expressing their ideas orally and in writing, clearly and concisely
7	To have the awareness of professional liabilities and ethics
8	To be able to follow current national and international problems

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	1	1	1	1	3
P2	3	2	3	2	3
P3	3	3	2	2	5
P4	1	1	1	1	3
P5	3	3	3	3	3
P6	2	2	2	2	3
P7	3	3	3	2	2
P8	3	3	3	2	2