



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Agricultural Ecology							
Course Code		TB108		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Understanding of natural and agricultural ecosystems with the system and the ecosystem, learning in effective environmental factors and alternative production systems on agricultural ecosystems							
Course Content		The definition and development of ecology as a science, system, model and the bounding basic concepts, ecosystem structure and function, ecosystem energy flow and chemical matter cycles, agricultural ecosystems, light and temperature characteristics and the effect on plants, characteristics of the atmosphere and importance of the agricultural aspects, air movements, effect on plants of water and its of different states, soil and soil characteristics, biological factors, conventional and alternative farming systems, environmental problems caused by agriculture, sustainability.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Prof. Mustafa SÜRMEN, Prof. Olcay ARABACI, Prof. Osman EREKUL							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Turgut, İ., 2006. Tarımsal Ekoloji, ADÜ Yayınları No:12
2	Boşgelmez, A., Boşgelmez, İ.İ., Savaşçı, S., Paslı, N., Kaynaş, S., 2000. Ekoloji I, ISVAK Yayın No: 6
3	3. Boşgelmez, A., Boşgelmez, İ.İ., Savaşçı, S., Paslı, N., Kaynaş, S., 2000. Ekoloji II-Toprak, ISVAK Yayın No: 6
4	4. Farklı Kaynaklardan Derlenmiş Sunumlar ve Ders Notları İnternet Kaynakları

Week	Weekly Detailed Course Contents	
1	Theoretical	The importance of environment, definition of ecology, natural resources
2	Theoretical	Systems models and limiting factors influence laws
3	Theoretical	Ecosystem, ecosystems and functions of the items
4	Theoretical	Ecosystem energy, photosynthesis
5	Theoretical	Primary and secondary production in ecosystem and flow of energy
6	Theoretical	Chemical cycles in ecosystems
7	Theoretical	Agricultural ecosystems
8	Intermediate Exam	Midterm exam
9	Theoretical	Environmental conditions in agricultural ecosystems, climatic factors, light
10	Theoretical	Temperature, the factors of affecting changes in temperature, thermoperiodism
11	Theoretical	The atmosphere, layers of atmosphere, composition of the atmosphere, the importance of the agricultural aspect
12	Theoretical	Water, air humidity, air humidity importance to plants, rainfall
13	Theoretical	Soil factors, soil texture, structure, plant nutrient elements, Biological Factors
14	Theoretical	Traditional and alternative farming systems
15	Theoretical	Environmental problems caused by agriculture, sustainability
16	Theoretical	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	1	28
Lecture - Practice	14	1	1	28
Midterm Examination	1	5	1	6



Final Examination	1	12	1	13
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To understand the importance of environment and natural resources
2	To learn the principles of sustainability in natural and agricultural ecosystems
3	Acquiring informations about the environmental conditions of agricultural ecosystems
4	To compare conventional and alternative farming systems
5	. Finding solutions to environmental problems caused by agriculture

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	4	4	3	4	4
P2	3	4	4	3	3
P3	4	3	3	3	3
P4	3	3	4	4	4
P5	5	4	4	4	3
P6	4	3	4	5	4
P7	3	4	3	5	3
P8	4	3	3	3	3

