



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Beekeeping and Pollination							
Course Code		ORT208		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 ( <i>Hours</i> )	Theory	2	Practice	1	Laboratory	0
Objectives of the Course		To give basic information to the students about modern bee management techniques, bee products and importance of pollination.							
Course Content		Beekeeping in Turkey and in the World, honeybee and colony life, the importance of honeybees and some pollinator bees on pollination in the organic herbal production, bee products.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Case Study					
Name of Lecturer(s)									

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Doğaroğlu, M. 2004. Modern Arıcılık Teknikleri. Doğa Arıcılık Tic. Tekirdağ.
2	Akbay, R. 1995. Arı ve İpekböceği Yetiştirme. A.Ü. Z.F. Yayın No:1428
3	Crane, E. 1990. Bees and Beekeeping.

Week	Weekly Detailed Course Contents	
1	Theoretical	Honeybee and historical development of beekeeping
2	Theoretical	Place and importance of beekeeping in agricultural production, apiculture in Turkey and in the World.
3	Theoretical	Anatomy of honeybees, honeybee colony individuals and their properties
5	Theoretical	Hormones and pheromones in honeybees, nectar and pollen, nutrition of honeybees.
6	Theoretical	Honeybee species and races, essential conditions for technical beekeeping
7	Theoretical	Colony management, spring period practices, swarm period works
8	Intermediate Exam	Midterm Exam
9	Theoretical	Pollination of plants, importance of pollination
10	Theoretical	Management of honeybees and pollinator insects in the organic production as pollinator
11	Theoretical	Nectar flow season, honey harvest, fall season and wintering works, transport of honeybee colonies, preserve of honeycombs.
12	Theoretical	Value of queen honeybee in the colony life, quality queen honeybee breeding, Royal jelly production
13	Theoretical	Honeybee health, sickness and injury, larvae and mature individual disease.
14	Theoretical	Bee products, significance of bee products with regards to human health, honey, pollen, royal jelly, propolis and bee venom.
15	Theoretical	Bee products, significance of bee products with regards to human health, honey, pollen, royal jelly, propolis and bee venom.
16	Final Exam	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	7	0	1	7
Term Project	1	15	1	16
Studio Work	7	0	1	7
Midterm Examination	1	16	1	17



Final Examination	1	24	1	25
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = <b>ECTS</b>				4
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	To be able to comprehend the basic concepts about beekeeping in Turkey and in the world,
2	To be able to comprehend the basic concepts about importance of honeybees and some pollinator bees on pollination in the organic herbal production,
3	To be able to comprehend the basic concepts about the management of honeybee colonies,
4	To be able to comprehend the basic concepts about honey bee products production and their importance,
5	To be able to comprehend the basic concepts about the effective use of honeybee colonies in the pollination,
6	To be able to comprehend the basic concepts about honeybee diseases.

### Programme Outcomes (Organic Agriculture)

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### 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
P1	4					
P4	4					
P6		4				
P9	4	4	4	4	4	4

