



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Pests and Diseases of Honey Bee							
Course Code		AR226		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	5	Workload	96 (Hours)	Theory	2	Practice	1	Laboratory	0
Objectives of the Course		During this course, students examine the diseases of honey bees and the parasites that damage the bees .Morphological, anatomical and physiological characteristics will be learned. Thus, students will gain the knowledge about the more abundant, affordable and healthy production facilities.							
Course Content		Bee diseases and pests and the measures to be taken against them							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Modern Arıcılık Teknikleri (Prof. Dr. Musin Doğaroğlu ISBN:975-94210-0-3
2	Arıcılığın Temel Esasları (Prof. Dr. Ferhat Genç, Doç. Dr. Ahmet Dodoloğlu Atatürk Ü. Ziraat Fak.Yayınları No:160)
3	Uygulamalı Arıcılık(Enver Öder,ISBN :975-9944-62-243-5)

Week	Weekly Detailed Course Contents	
1	Theoretical	Beekeeping activities
	Practice	Field work
2	Theoretical	American foulbrood disease
	Practice	American foulbrood disease
3	Theoretical	American foulbrood disease
	Practice	American foulbrood disease
4	Theoretical	Foulbrood disease and stroke
	Practice	Foulbrood disease and stroke
5	Theoretical	Lime, stone disease
	Practice	Field work
6	Theoretical	Nosema and the struggle for it
	Practice	Nosema and the struggle for it
7	Theoretical	Chronic and acute bee paralysis
	Practice	Chronic and acute bee paralysis
8	Intermediate Exam	Midterm exam
9	Theoretical	The negative effects of antibiotics on bees
	Practice	Field work
10	Theoretical	The introduction of varroa, biology and epidemiology
	Practice	The introduction of varroa, biology and epidemiology
11	Theoretical	Drug selection against Varroa struggle, biotechnical and cultural methods
	Practice	Drug selection against Varroa struggle, biotechnical and cultural methods
12	Theoretical	Large and small wax moth and the struggle for it
	Practice	Field work
13	Theoretical	Wasps and the struggle for them
	Practice	Field work
14	Theoretical	Tracheal mite and the struggle for it
	Practice	Field work
15	Theoretical	Wild bees ants and bee-eater and the struggle for them



15	Practice	Field work
16	Final Exam	Final exam

**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	2	0	14	28
Lecture - Practice	1	0	14	14
Land Work	8	0	4	32
Reading	5	0	4	20
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
Total Workload (Hours)				96
[Total Workload (Hours) / 25*] = <b>ECTS</b>				4
*25 hour workload is accepted as 1 ECTS				

**Learning Outcomes**

1	To be able to describe viruses and bacteria diseases
2	To be able to describe fungal and protozoa diseases
3	To be able to describe internal and external parasites
4	To be able to describe predators and other pests

**Programme Outcomes (Apiculture)**

1	Understand to bee family (ecology, behavior), needs and diseases of bees. To make needs for healthy colony.
2	Produce of bee and bee products with modern techniques
3	Understand and use of tools and equipments used in Apiculture
4	Understand to nectar and pollen vegetables
5	To know nomadic apiculture conditions
6	Packing of bee products
7	Application to hygienic rules in apiculture enterprise
8	To have information of professional ethics and responsibility
9	Ability to work in team and individual
10	To communicate orally and in writing

**Contribution of Learning Outcomes to Programme Outcomes** 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4
P1	5	5	5	5
P2	5	4	4	4
P7	5	5	4	5

