AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Queen Rearing								
Course Code	AR230		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	4	Workload	96 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	Relationship between the colony and the queen, worker bees and differentiation of the queen, queen bees mating, the queen bees' sexual organs and spawning, the main factors that affect the value of bees, male bees life behavior, trained and retained for drones, controlled production of queen bees, larvae transferring the main raising bees. Commercial cultivation of the queen bee, queen bee rearing conditions, the effects of the development, breeder colonies, queen bee rearing larvae ,beginning and finishing properties and regulation of the colonies, main nozzles and unpaired queen bees storage, mothers obtained mating, mating control of honey bees,queen bees' care and administration.								
Course Content	Queen Breeding methods and care of queen bee and management is taught.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Individual Study								
Name of Lecturer(s)	Ins. Ali Kemali ÖZUĞUR								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Arı Genetiği ve Islahı(Prof. Dr. Metin Şengonca, ISBN:975-483-615-9
2	Ana arı Yetiştiriciliği(Enver Öder ,ISBN:975-605-62580-0-8
3	Modern Arıcılık Teknikleri (Prof. Dr. Musin Doğaroğlu, ISBN:975-94210-0-3
4	Arıcılığın Temel Esasları (Prof. Dr. Ferhat Genç, Doç. Dr. Ahmet Dodoloğlu Atatürk Ü. Ziraat Fak.Yayınları No:160)

Week	Weekly Detailed Course Contents	
1	Theoretical	The life cycle of the bee colony
	Practice	Examination of honey bee colonies
2	Theoretical	The life of queen bees ,stages of growth and behavior
	Practice	Examination of queen bee
3	Theoretical	The life and behavior of drones
	Practice	Examination of male bees
4	Theoretical	Worker bee's life and behavior
	Practice	Examination of worker bees
5	Theoretical	Obtaining queen bee for natural bee breast
	Practice	Field work
6	Theoretical	Obtaining queen bee for natural bee breast
	Practice	Field work
7	Theoretical	Obtaining of queen bee for natural bee breast
	Practice	Field work
8	Intermediate Exam	Midterm exam
9	Theoretical	Bee cultivation under controlled conditions
	Practice	Bee cultivation under controlled conditions
10	Theoretical	Bee cultivation under controlled conditions
	Practice	Field work
11	Theoretical	Commercial queen bee breeding
	Practice	Commercial queen bee breeding
12	Theoretical	Commercial queen bee breeding
	Practice	Commercial queen bee breeding
13	Theoretical	Commercial queen bee breeding

13	Practice	Field work
14	Theoretical	Administration and maintenance of queen bees mating
	Practice	Administration and maintenance of queen bees mating
15	Theoretical	Administration and maintenance of queen bees mating
	Practice	Field work
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	2	0	14	28
Lecture - Practice	2	0	14	28
Laboratory	4	0	2	8
Land Work	6	0	3	18
Reading	4	0	3	12
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
			Total Workload (Hours)	96
			[Total Workload (Hours) / 25*] = **ECTS**	4

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes

1	To be able to comprehend the life and the behavior of male and female bees
2	To be able to acquire how to obtain queen bees from the main breast naturally
3	To be able to acquire commercial bee growing in controlled conditions
4	To be able to comprehend queen bees' mating and how to care management

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	Undestand and use of tools and equipments uesd 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	4	4	5
P2	4	5	5	4
P3		4		4