

BEE KEEPING AND SILKWORM BREEDING

1	Course Title:	BEE KEEPING AND SILKWORM BREEDING
2	Course Code:	ZOO2406
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ÜMRAN ŞAHAN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi Ziraat Fakültesi Zootekni Bölümü Görükle- Bursa umran@uludag.edu.tr 224 2941553
17	Website:	
18	Objective of the Course:	Gains knowledge about perform technical beekeeping, colony management, produce of bee products, the pests and diseases of bees; silkworm breeding, produce cocoon and raw silk and silkworm eggs, the diseases of silkworm
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Knows the important species of bee and silkworm species that breed in different regions of the World.
	2	Knows the important morphological and physiological characteristics of bees and silkworm.
	3	Knows and applies the management methods used in bee and silkworm breeding.
	4	Learns the importance, characteristics and the usage of products such as honey, pollen, royal jelly, bee venom, propolis and beeswax.
	5	Learns the importance of beekeeping in pollination.
	6	Knows the physical and chemical characteristics of silkworm cocoon and raw silk and also the usage of silk.
	7	Knows the methods and stages of reproductive and industrial eggs.
	8	Knows the diseases and pests of beekeeping and silkworm rearing.
	9	
	10	
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	History of beekeeping and development as an industry, current state of beekeeping in the World and Turkey			
2	The essential requirements for technical beekeeping			
3	Taxonomic classification of bees, the body structure of bees' and bee species			
4	Components of the colony, activities and behaviors of the colony			
5	Usage and specifications of the products that made and collected from environment by bees			
6	Queen bee breeding, production of royal jelly and the feeding of honey bees			
7	The enemies of honey bees (diseases and pests)			
8	Repeating courses and midterm exam			
9	History of sericulture in our country, the production, consumption and economic impotance of its in the World and Turkey			
10	Species of silkworm and their charachteristics, the morphological and physiological charachteristics, the incubation and hatching of silkworm eggs			
11	Genetic and breeding of silkworm, the main factors that influence the silkworm rearing			
Activites		Number	Duration (hour)	Total Work Load (hour)
20	Theology, the feeding of bees and the production of reproductive eggs	14	2.00	28.00
Practicals/Labs		0	0.00	0.00
Self study and preperation		5	6.00	30.00
Homeworks		0	0.00	0.00
Projects		0	0.00	0.00
Field Studies		1	6.00	6.00
Midterm exams		1	10.00	10.00
Others		6	5.00	30.00
Final Exams		1	15.00	15.00
Total Work Load				129.00
Total work load/ 30 hr		The Silkworm: an Important Laboratory Tool (Y. TAZIMA)		3.97
ECTS Credit of the Course				4.00
		ŞAHAN, Ü. 2000. Zootekni: (Favankarak, Arıcılık ve İpekböceği Yetiştirme Bölümleri) (12-13-14-15-16-17-18-19 .Üniteler). Anadolu Üniversitesi Açık Öğretim Fak. Yayın No: 485, Anadolu Üniversitesi Basımevi, Eskişehir, 191- 332 (ISBN 975-492-628-X). ŞAHAN, Ü. 2011.İpekböcekçiliği (İpekböceği Yetiştirme ve Islahı, Koza Üretimi, Ham İpek, Yumurta Üretimi, Hastalıklar ve Dut Yetiştirme.Dora Yayınları, Bursa, ISBN: 978-605-4118.		
23	Assesment			
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT	
Midterm Exam		1	40.00	
Quiz		0	0.00	

Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade	40.00	
Contribution of Final Exam to Success Grade	60.00	
Total	100.00	
Measurement and Evaluation Techniques Used in the Course		
24	ECTS / WORK LOAD TABLE	

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	3	1	0	0	1	0	4	3	0	0	0	0	0	0	0	0
ÖK2	4	5	4	5	4	3	5	3	0	0	0	0	0	0	0	0
ÖK3	5	5	3	5	4	5	5	3	0	0	0	0	0	0	0	0
ÖK4	2	5	3	4	5	3	2	5	3	5	0	0	0	0	0	0
ÖK5	2	0	3	5	2	5	0	0	2	0	0	0	0	0	0	0
ÖK6	5	5	4	5	5	5	5	4	3	3	0	0	0	0	0	0
ÖK7	5	5	3	5	5	4	4	3	2	0	0	0	0	0	0	0
ÖK8	5	5	4	3	4	3	4	3	0	4	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							