AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Laboratory Techniques In Entomology								
Course Code	ZBK522		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	8	Workload	200 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To teach the basic techniques and methods used in scientific studies related to phytophagous nematodes, insects and mites								
Course Content	Tools and devices used in laboratory are presented to the students and they are informed about the sample collection of Nematoda, Acari and insect, examination and mounting techniques in Acari and Nematoda, preparation of leg, antenna, wing etc. of insects in this lecture								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion								
Name of Lecturer(s)	Prof. İbrahim ÇAKMAK								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Düzgüneş, Z. 1980. Küçük Arthropodların Toplanması, Saklanması ve Mikroskopik Preparatlarının Hazırlanması. T.C. Gıda-Tarım ve Hayvancılık Bakanlığı, Zirai Karantina Genel Müdürlüğü, Ankara, 77 s.
2	Ecevit O. ve Mennan S. 2000. Entomoloji'de Laboratuvar Yöntemleri. Ondokuz Mayıs Üniversitesi, Ziraat Fakültesi Ders Kitabı No:35 Samsun, 196 s.

Week	Weekly Detailed Course Contents	
1	Theoretical	General information about the course
2	Theoretical	Tools and devices used in laboratory (Features of microscopes and techniques related to their usage)
3	Theoretical	Demonstration of other laboratory equipments
4	Theoretical	Sample collection and extraction methods of Nematoda
5	Theoretical	Examination and mounting techniques in Nematoda
6	Theoretical	Collection and storage in Acari
7	Theoretical	Examination and mounting techniques in Acari
8	Theoretical	Midterm exam
9	Theoretical	Collection and labeling of insects
10	Theoretical	Preparation of leg, antenna, wing etc. of insects
11	Theoretical	Collection and preparation of Aphidoidea
12	Theoretical	Collection and preparation of Aleyrodidae
13	Theoretical	Collection and preparation of Diaspididae and Coccidae
14	Theoretical	Collection and preparation of Thrips
15	Theoretical	Preserving, labeling and conservation of Nematoda, Acari ve Insecta
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Lecture - Practice	14	3	2	70
Midterm Examination	1	34	1	35

Final Examination	1	38	1	39
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = **ECTS**	8
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	to be able to recognize the device and tools used in the laboratory on Entomology
2	to be able to acquire the information on collection, storage and preparation of nematodes
3	to be able to acquire the information on collection, storage and preparation of mites
4	to be able to acquire the information on collection, storage and preparation of insects
5	to be able to acquire the information on being labeled, storage and protection of nematodes, mites and insects

Programme Outcomes *(Plant Protection Master)*	
1	To develop knowledge and abilities that gained during undergraduate education
2	To gain ability to search and pursue current literature
3	To gain ability to plan and write projects that help solving problems in field of study.
4	To gain ability to conduct research, analyze data, evaluate research results scientifically and preapare reports and thesis writing.
5	Students will be able to learn and apply the laboratory test and analysis methods
6	To recognize occupational and ethical responsibility

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	5	4	4
P2	4	5	5	5	4
P3	5	5	5	5	4
P4	5	5	5	5	4
P5	5	5	5	5	4
P6	5	4	5	4	4