



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Mass Productions of Insects							
Course Code		ZBK510		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	203 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		In this course, the factors affecting rearing and the insect mass production are described.							
Course Content		In this course, the methods and techniques of mass rearing of insects, needed tools and equipments and preparation of insectdiets, mass rearing of phytophagous and entomophagous insects species are explained separately. Besides descriptions and controls of important pests and diseases that cause problems in mass rearing are also mentioned.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion					
Name of Lecturer(s)		Prof. Tülin AKŞİT							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Singh P. and R.F.Moore (Ed.),1985.Handbook of Insect Rearing Vol. I).Elsevier Science Publishers B.V. Amsderdam, 488 pp.
2	Singh P. and R.F.Moore (Ed.),1985.Handbook of Insect Rearing (Vol. II. Elsevier Science Publishers B.V. Amsderdam, 514 pp.3.
3	Grenier,S.,P.D.Greany and A.C.Cohen,1994.Potential for mass release of insect parasitoids and predators through development of artificial culture techniques(.Ed.:Rosen, D.,F.D.Bennett,J.L.Capinera), 1994.
4	Cohen, A.C., Insect Diets.Science and Technology. CRC Press, USA (2004). 3) van Lenteren, J. C., Quality Control and Production of Biological Control Agents: Theory and Testing Procedures. CABI Publishing, UK (2003).

Week	Weekly Detailed Course Contents	
1	Theoretical	The preparation of insectsrearingssystems
2	Theoretical	Rearing, colonymaintenanceandgeneticvariations of insects
3	Theoretical	Diets (multiplespeciesrearingdiets)
4	Theoretical	Artificialdiets
5	Theoretical	Artificialdiets
6	Theoretical	Mass-rearingof storedproductinsects
7	Theoretical	Natural foods
8	Intermediate Exam	QUIZ
9	Theoretical	Rearing of phytophagousspecies on artificialdiets
10	Theoretical	Rearing ofparasitoidsandpredators on thenaturalhost
11	Theoretical	General problems in rearingof entomophagousinsects
12	Theoretical	Diseaserecognition in laboratorycolonies
13	Theoretical	Contaminantcontrol inlaboratorycolonies
14	Theoretical	Qualitycontrol in laboratory-rearedinsects
15	Theoretical	Thepreparation of insectsrearingssystems
16	Final Exam	FINAL EXAM

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Term Project	1	20	1	21
Quiz	2	10	2	24
Midterm Examination	1	50	1	51



Final Examination	1	50	1	51
Total Workload (Hours)				203
[Total Workload (Hours) / 25*] = ECTS				8
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	to be able to find out the conditions of insect mass rearing,
2	to be able to find out the natural,artificial and semi- artificial diets of insects
3	to be able to find out the problems that can be occurred on the mass production of insects and solutions
4	
5	

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 prepare 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	2	2	2	2	2
P2	3	3	3	3	3
P3	4	4	4	4	4
P4	5	5	5	5	5
P5	4	4	4	4	4
P6	4	4	4	4	4

