



UNIVERSITI TEKNOLOGI MARA

AGC701: IDENTIFICATION OF CROP PESTS AND CONTROL

Course Name (English)	IDENTIFICATION OF CROP PESTS AND CONTROL APPROVED
Course Code	AGC701
MQF Credit	3
Course Description	This course will teach students on identifying and managing major pests of field crops. At the end of this course, the students will familiarize with the nature of damage and seasonal incidence of insect pests that cause loss to major field crops and their effective management by different methods.
Transferable Skills	Students can describe, analyze, interpret the prediction of pest population level and make control recommendations
Teaching Methodologies	Lectures, Discussion
CLO	CLO1 Describe and explain the basic principles of insect with emphasis on its biological characteristics classification of insects CLO2 Verbally, visually (pictures, structure & shape) and relate as well as discuss the classification of insects CLO3 Analyze, interpret & employ the concept, theories in entomology for identification of insect ecology and their relationship with plant CLO4 Communicate to peers verbally and to the facilitator in describing the prediction of pest population level and make control recommendations CLO5 Collaborate, motivate and truthful with group members in the lecture room
Pre-Requisite Courses	No course recommendations
Topics	
1. 1.0 Overview of Insect 1.1) 1 Insect morphology 1.2) 1.2 Insect metamorphosis and moulting 1.3) 1.3 Physiological system of insect 1.4) 1.4 Insect nutrition	
2. 2.0 Insect Classification 2.1) 2.1 Evolutionary history of insects 2.2) 2.2 Introduction to phylogeny of insects 2.3) 2.3 Distinguish character, habit and habitats of Insect 2.4) 2.4 Beneficial and harmful insects	
3. 3.0 Insect ecology 3.1) 1 Basic concepts of ecology 3.2) 3.2 Population dynamics and assessment 3.3) 3.3 Abundance and diversity of insects 3.4) 3.4 Seasonality in insects	
4. 4.0 Insect-plant relationship 4.1) 4.1 Host-plant selection by phytophagous insects 4.2) 4.2 Insect-plant interaction 4.3) 4.3 Role of plant secondary metabolites 4.4) 4.4 Insect vectors of plant disease	
5. 5.0 Economic importance 5.1) 5.1 Seasonal occurrence 5.2) 5.2 Nature of damage 5.3) 5.3 Patterns of pest damage and assessment 5.4) 5.4 Crop-pest modeling	

6. 6.0 Insect Pest Management

- 6.1) Preventive measures
- 6.2) 5.2 Curative measures
- 6.3) 5.3 Integrated Pest Management
- 6.4) 5.4 Insecticide resistance management
- 6.5) 5.5 Insect protective transgenic crops

7. 7.0 Major pest of field crops

- 7.1) 7.1 Plantation crop
- 7.2) 7.2 Vegetable crops
- 7.3) 7.3 Fruit crops
- 7.4) 7.4 Herbs

Assessment Breakdown	%
Continuous Assessment	70.00%
Final Assessment	30.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Report Assignment	5%	CLO5
	Assignment	Report Assignment	15%	CLO3
	Assignment	Video Presentation	20%	CLO4
	Test	Written Test	30%	CLO1

Reading List	Recommended Text	Evans JW. 2005, <i>Insect Pests and their Control.</i> , Asiatic Publ., New Delhi, India
	Reference Book Resources	Dhaliwal GS, Singh R & Chhillar BS. 2006, <i>Essential of Agricultural Entomology</i> , Kalyani Publ., New Delhi
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	