



Course Specifications

Course Title:	Medical and Economic Entomology
Course Code:	456ZOO
Program:	Biology
Department:	Biology
College:	Science
Institution:	Jazan University

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A. Course Identification

1. Credit hours:			
2. Course type			
a.	University <input type="checkbox"/>	College <input type="checkbox"/>	Department <input checked="" type="checkbox"/>
b.	Required <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>	Others <input type="checkbox"/>
3. Level/year at which this course is offered: Level 8/4 th Year			
4. Pre-requisites for this course (if any): General Entomology 356Zoo			
5. Co-requisites for this course (if any): None			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	66%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other (Practical)	15	34%

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	15
3	Tutorial	-
4	Others	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description							
Course Title	Course No.	Credit Units			Year	Level	Pre-Requisite
		Theoretical	Practical	Total			
Medical and Economic Entomology	456 Zoo	2	1	3	4 th	8 th	356Zoo
2. Course Main Objective							
This course aims to giving the student knowledge in the fields: <ul style="list-style-type: none"> - Insects of medical importance and their biology and systematic position. -Life cycle of pathogenic Micro-organisms inside the vector. - Means of Control insects of medical and economic importance. - Identify examples of beneficial insects and biological control 							

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Demonstrate structures, features, and processes related to course contents	K 2-3
1.2	Viewing the insect life cycle, its strengths, weaknesses and how to control it.	K 3-1
1.3	Definition of insect samples and their importance	K 3-3
1...		
2	Skills :	
2.1	Explain aspects, theories, and processes relevant to course contents.	S 2-1
2.2	Compare and discuss different structures and features related to course contents.	S 2-2
2.3	Interpret experimental data and apply in relevant situations,	S 3-2
2...		
3	Values:	
3.1	Apply practices of life-long learning in Entomology sciences for their professional career	V 1-1
3.2	Demonstrate risk assessment & safety and then take the right decision in the various work sites	V 2-2
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Identification medical insects. Types of problems caused by insects.	2
2	Methods of transmission of pathogens.	2
3	Life cycle of mosquitoes and diseases transmission	2
4	Plasmodium life cycle – Mosquito control.	2
5	Life cycle of Sand fly and medical importance	2
6	Life cycle of Cockroaches and diseases transmission- Life cycle of lice and medical importance	2
7	Life cycle of Bugs & fleas and medical importance.	2
8	Identification economic insects -The agriculture pests in Saudi Arabia.	2
9	Identification economic insects -The agriculture pests in Saudi Arabia.	2
10	Order Orthoptera - Economic importance and control.	2
11	Orders: Isoptera ,Thysanoptera - Economic importance - control.	2
12	Order: Lepidoptera – Economic importance - control.	2
13	Order: Lepidoptera – Economic importance - control.	2
14	Beneficial insects - Biological control.	2
15	Revision	2
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
K 2-3	Demonstrate structures, features, and processes related to course contents	Lectures, Lab work	Written exam, Quizzes, Lab work assignments
K 3-1	Viewing the insect life cycle, its strengths, weaknesses and how to control it.	Lectures.	Written exam, Quizzes, Assignments
K 3-3	Definition of insect samples and their importance	Lectures, Lab work	Written exam, Lab work assignments
2.0	Skills		
S 2.1	Explain aspects, theories, and processes relevant to course contents.	Lectures, Lab work	Written exam, Short answer Question
S 2.2	Compare and discuss different structures and features related to course contents.	Lectures, Lab work	Written exam, Assignments
S 3-2	Interpret experimental data and apply in relevant situations,	Lectures, Lab work, Group Discussion	Quizzes, Lab work assignments
3.0	Values		
V 1-1	Apply practices of life-long learning in Entomology sciences for their professional career	Lectures, Lab work	Written exam, Quizzes, Assignments
V 2-2	Demonstrate risk assessment & safety and then take the right decision in the various work sites	Lectures, Lab work	Written exam, Quizzes, Assignments
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Written assignment	3	3%
2	Group assignment	4	2%
3	Theoretical quiz	5	5%
4	Midterm exam	7	10%
5	Practical Mid-term exam	9	10%
6	Practical assignment	11	5%
7	Final Practical exam	13	15%
4	Final exam	16	50%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

10 Office hours/faculty/week

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<ul style="list-style-type: none"> - المدخل الي علم الحشرات الطبية والبيطرية (2015) تأليف د عزام محمد الناصر الاحمد- دار جامعة الملك سعود للنشر- المملكة العربية السعودية. - دليل المرشد الزراعي (2013): الطبعة الاولى- د محمد علي طناني -دار البتول للنشر - جمهورية مصر العربية .
Essential References Materials	<ul style="list-style-type: none"> - Louis Compton Miall (2017) Injurious and Useful Insects: An Introduction to the Study of Economic Entomology, Leopold Classic Library, Amazon.com. - Mike Service (2012), Medical Entomology for Students (5thed), Cambridge University Press.

Electronic Materials	WWW.WHO.COM - http://medent.usyd.edu.au
Other Learning Materials	-----

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Lecture room,
Technology Resources (AV, data show, Smart Board, software, etc.)	Data Show, AV, Smart Board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Photographs, slides, multimedia, web-based learning. Samples, Light microscopes, glassware, chemicals.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching	Students, Faculty	Direct (Questionnaire)
Effectiveness of assessment	Peer Reviewer	Direct (Cross Check marking)
Extent of achievement of course learning outcomes	Program Leader	Indirect (QA Committee)
Quality of learning resources	QA. Committee	Indirect (Benchmarking)

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Consultant Committee/ Board of Biology Department
Reference No.	
Date	