



## Course Specifications

<b>Course Title:</b>	<b>General Entomology</b>
<b>Course Code:</b>	<b>356ZOO</b>
<b>Program:</b>	<b>Biology</b>
<b>Department:</b>	<b>Biology</b>
<b>College:</b>	<b>Science</b>
<b>Institution:</b>	<b>Jazan University</b>

## Table of Contents

<b><u>A. Course Identification</u></b> .....	<b>3</b>
6. Mode of Instruction (mark all that apply) .....	3
<b><u>B. Course Objectives and Learning Outcomes</u></b> .....	<b>4</b>
1. Course Description .....	4
2. Course Main Objective .....	4
3. Course Learning Outcomes .....	4
<b><u>C. Course Content</u></b> .....	<b>5</b>
<b><u>D. Teaching and Assessment</u></b> .....	<b>5</b>
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods .....	5
2. Assessment Tasks for Students .....	5
<b><u>E. Student Academic Counseling and Support</u></b> .....	<b>6</b>
<b><u>F. Learning Resources and Facilities</u></b> .....	<b>6</b>
1.Learning Resources .....	6
2. Facilities Required.....	6
<b><u>G. Course Quality Evaluation</u></b> .....	<b>7</b>
<b><u>H. Specification Approval Data</u></b> .....	<b>7</b>

## A. Course Identification

<b>1. Credit hours: 3 hours</b>			
<b>2. Course type</b>			
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"/>
<b>3. Level/year at which this course is offered: Six / Three</b>			
<b>4. Pre-requisites for this course (if any): Invertebrates 251 ZOO</b>			
<b>5. Co-requisites for this course (if any):</b>			

## 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	26 h	86.7
2	Blended	4 h	13.3
3	E-learning		
4	Correspondence		
5	Other		

## 7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
<b>Contact Hours</b>		
1	Lecture	30
2	Laboratory/Studio	30
3	Tutorial	-
4	Others (specify)	-
	<b>Total</b>	<b>60</b>
<b>Other Learning Hours*</b>		
1	Study	36
2	Assignments	5
3	Library	3
4	Projects/Research Essays/Thesis	-
	Lab reports	3
5	Others(specify)- Exam preparation (mid & final)-	11
	-Office hours	2
	<b>Total</b>	<b>60</b>
<b>Grand Total</b>		<b>120</b>

\*The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

## B. Course Objectives and Learning Outcomes

1. Course Description							
Course Title	Course No.	Credit Units			Year	Level	Pre-Requisite
		Theoretical	Practical	Total			
<b>GENERAL ENTOMOLOGY</b>	<b>356Zoo</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>3<sup>rd</sup></b>	<b>6<sup>th</sup></b>	<b>251Zoo</b>
<p><b>1) Course Objectives:</b> Basic and applied information of entomology for undergraduate students with emphasis on: The external and internal essential characteristics of insects, Metamorphosis and insect classification.</p> <p><b>2) Course Contents:</b> The insect importance and classification - insect morphology - [insect head and antennae - mouthparts - eyes - major wing and leg types - study of abdomen appendages] - Anatomy and internal structure - The body wall - (integument) - Metamorphosis - Taxonomy - Insect ecological factors. Field trips to study local insect habitats and to collect samples.</p> <p><b>3) Practical:</b> External and internal morphology of insects, types of metamorphosis, classification of insects, Field trips to study local insect habitats and to collect samples.</p> <p><b>4) Assessment:</b> Exams: Essay/Objective, oral, class work, research work Practical: Identifying samples and slides, drawings. Quiz 20% Practical 30% Final 50%</p> <p><b>5) Teaching Methods:</b> Lectures, photographs, slides, field trips, multimedia, web-based learning. Samples, Light microscopes, glassware, chemicals.</p> <p><b>6) Text Book</b></p> <ul style="list-style-type: none"> <li>• علم الحشرات العام (2011). العدد الأول، تأليف د. رقية بنت محمد عواد المحمادي. مركز النشر العلمي جامعة الملك عبد العزيز.</li> </ul> <p><b>8) Reference</b></p> <ul style="list-style-type: none"> <li>• Cedric Gillott (2015) Entomology (3<sup>rd</sup> ed.) Pub. Springer, The Netherlands.</li> </ul>							
<p><b>2. Course Main Objective</b> Basic and applied information of entomology for undergraduate students with emphasis on the essential characteristics of insects.</p>							

### 3. Course Learning Outcomes

CLOs		Aligned PLOs
1	<b>Knowledge: At the end of the program the graduates will be able to:</b>	
1.1	List all characteristics, importance, features of general entomology aspects.	K1.3
1.2	Draw all systems, organs, cells and its contents diagrams and figures of general entomology	K2.3
2	<b>Skills : At the end of the program the graduates will be able to:</b>	
2.1	Apply the theoretical knowledge and understanding in laboratory experiments and techniques	S1.2
2.2	Compare the different structures and features related to general entomology.	S2.2
2.3	Design a biological experiment and procedures in laboratory or in the field or even theoretically.	S3.1
3	<b>Values: At the end of the program the graduates will be able to:</b>	
3.1	Apply practices of life-long learning in general entomology for their professional career	V1.1
3.2	Illustrate awareness of risk assessment and safety observation when dealing with various equipment at various fields with general entomology.	V2.1

### C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Entomology. general characters of insects	4
2	Body Wall – Insect head - Thorax – Abdomen	6
3	Digestive and Excretory Systems - Respiratory System-Circulatory System	6
4	Nervous System - Reproductive System.	4
5	Insect Metamorphosis - Types larvae and pupae.	4
6	Basics of insect taxonomy – subclass apterygota - Subclass pterygota.	4
7	Final Exam.	2
<b>Total</b>		<b>30</b>

## D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
1.1	List all characteristics, importance, features of general entomology aspects.	Lectures	Written exam, Quizzes, Lab work assignments
1.2	Draw all systems, organs, cells and its contents diagrams and figures of general entomology	Lectures, Lab work	Written exam, Quizzes, Assignments
<b>2.0</b>	<b>Skills</b>		
2.1	Apply the theoretical knowledge and understanding in laboratory experiments and techniques	Lectures, Lab work	Written exam, Short Answer Question
2.2	Compare the different structures and features related to general entomology.	Lectures, Lab work,	Written exam, Assignments
2.3	Design a biological experiment and procedures in laboratory or in the field or even theoretically.	Lectures, Lab work, Group Discussion	Quizzes, Lab work assignments
<b>3.0</b>	<b>Competence</b>		
3.1	Apply practices of life-long learning in general entomology for their professional career	Group Discussion, Lab work	Lab work assessment
3.2	Illustrate awareness of risk assessment and safety observation when dealing with various equipment at various fields with general entomology.	Lab work	Lab work assessment

### 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	Mid-term exam	7	10
5	Practical Mid-term exam	9	10
6	Practical assignment	11	5
7	Final practical exam	13	15
8	Final Exam	15	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

<b>Required Textbooks</b>	• علم الحشرات العام (2011). العدد الأول، تأليف د. رقية بنت محمد عواد المحمادي. مركز النشر العلمي جامعة الملك عبد العزيز.
<b>Essential References Materials</b>	• Cedric Gillott (2015) Entomology (3 <sup>rd</sup> ed.) Pub. Springer, The Netherlands.
<b>Electronic Materials</b>	<a href="https://entomology.unl.edu/websites">https://entomology.unl.edu/websites</a>
<b>Other Learning Materials</b>	

### 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	1 Lecture room(s) for groups of 50 students. 1 Laboratory for group of 25 students.
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	AV, data show, Smart Board
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Light microscopes, glassware, chemicals, consumables, dissection tools.

## 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)

## H. Specification Approval Data

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