هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**General ENTOMOLOGY**
Course Code:	**ZOOL356**
Program:	**B.Sc.**
Department:	**Biology**
College:	**College of Science**
Institution:	**Jazan University (JU)**
Version:	**T-104 V2022**
Last Revision Date:	**19 December 2022**

Table of Contents:

No	List of Topics	Con Ho
1.	Introduction: Introduction to Entomology	2
2.	How to collect insects	2
3.	Insects traps	2
4.	Head region Types of antenna, mouth parts	2
5.	Thorax region Types of wings	2
6.	Types of legs	2
7.	Abdominal region	2
8.	Metamorphosis	2
9.	Insects anatomy	2
10.	Classification of insects	2
	Total	2

A. General information about the course:

Course Identification					
1. Credit hours:	3h (2L+1P)				
2. Course type					
a.	University ☐	College ☒	Department☐	Track☐	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered:	Level 9 / third Year				
4. Course general Description					
5. Pre-requirements for this course (if any): ZOOL251					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) Basic and applied information of entomology for undergraduate students with emphasis on: The external and internal essential characteristics of insects, Metamorphosis and insect classification.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	22	50%
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning		
4.	Distance learning		
5.	Other (Lab work)	22	50%

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	22
2.	Laboratory/Studio	22
3.	Field	
4.	Tutorial	
5.	Others (specify)	2
	Total	46

. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	**List** all characteristics, importance, features of general entomology aspects..	**PLO 1.3**	Lecture, discussion in class and labs	**Direct:** Quiz and mid-term & final Exams. **Indirect**: student survey
1.2	**Draw** all systems, organs, cells and its contents diagrams and figures of general entomology. .	**PLO 2.3**	Lecture, discussion in class and labs	**Direct:** Quiz and mid-term & final Exams. **Indirect**: student survey
2.0	Skills			
2.1	**Apply** the theoretical knowledge and understanding in laboratory experiments and techniques	**PLO 1.2**	Lecture, discussion in class and labs	**Direct:** Quiz and mid-term & final Exams. **Indirect**: student survey
2.2	**Argue** different biological approaches in laboratory or field or even theoretically.	**PLO 2.2**	Lecture, discussion in class and labs	**Lecture, discussion in class and labs**
2.3	**Design** a biological experiment and procedures in laboratory or in the field or even theoretically.	**PLO 3.1**	Lecture, discussion in class and labs	Lecture, discussion in class and labs
3.0	**Values**			
3.1	**Apply** practices of life-long learning in general entomology for their professional career.	PLO 1.1	Lecture, discussion in class and labs	Lecture, discussion in class and labs
3.2	**Illustrate** awareness of risk assessment and safety observation when dealing with various equipment at various fields with general entomology.	PLO 2.1	Lecture, discussion in class and labs	Lecture, discussion in class and labs

B. Course Content

1. Theory Part:

No	List of Topics	Contact Hours
1.	**Introduction**: Introduction to Entomology	2
2.	General characters of insects	2
3.	**Body Wall – Moulting or Ecdysis**	2
4.	- Integumentary Processes : Colouration In Insects :	2
5.	**Insect head - Head and its appendages**	2
6.	**Thorax- Thorax and its appendages**	2
7.	**Abdomen and its appendages**	2
8.	**wing coupling apparatus- Mechanism of flight - Wing venation**	1
9.	**Respiratory System- Digestive and Excretory Systems- Salivary glands-**	1
10.	**Digestion -Blood gills - Food habits-**	1
11.	**Circulatory System- Blood or Haemolymph- Blood circulation**	1
12.	**Nervous System -**	1
13.	**Reproductive System.**	1
14.	**Insect Metamorphosis - Types larvae and pupae.**	1
15.	**Insect taxonomy**	1
Total		22

2. Experimental Part

No	List of Topics	Contact Hours
11.	Introduction: Introduction to Entomology	2
12.	How to collect insects	2
13.	Insects traps	2
14.	Head region Types of antenna, mouth parts	2
15.	Thorax region Types of wings	2
16.	Types of legs	2
17.	Abdominal region	2
18.	Metamorphosis	2
19.	Insects anatomy	2
20.	Classification of insects	2
Total		22

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Theoretical Assignment	3	5%
2.	Theoretical quiz	5	5%
3.	Mid-term exam	6	10%

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
4.	Lab Quiz	8	5%
5.	Practical assignment	9	5%
6.	Final practical exam	12	20%
7.	Final exam	13	50%
Total			100%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	▪ علم الحشرات العام (2011). العدد الأول، تأليف د. رقية بنت محمد عواد المحمادي. مركز النشر العلمي جامعة الملك عبد العزيز. ▪ Cedric Gillott (2015) Entomology (3rd ed.) Pub. Springer, The Netherlands. ▪
Supportive References	None
Electronic Materials	▪ https://entomology.unl.edu/websites
Other Learning Materials	▪ Other learning material such as computer-based programs/CD, professional standards or regulations and software

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms and laboratories
Technology equipment (projector, smart board, software)	Smart board, Smart Board and projector
Other equipment (depending on the nature of the specialty)	Light microscopes, glassware, chemicals, consumables, dissection tools insect organs Models Preserved dissected periplaneta americana

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, Peer and program leader	Direct (Questionnaire)
Effectiveness of students assessment	Students, Program assessment committee	Direct/ Indirect
Quality of learning resources	Students, Faculty members	Indirect

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	Instructor	Indirect (Benchmarking)
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	Biology Department Board
REFERENCE NO.	BIO2214
DATE	20/9/2022AD

Course coordinator Dr salama zedan ahmed salama
Signature

Head of department
Dr Abdulla Yahiya Mashraqy signature