



Course Specifications

Course Title:	General Entomology
Course Code:	324BIO-3
Program:	Biology
Department:	Biology
College:	College of Arts and Sciences
Institution:	Najran University

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A. Course Identification

1. Credit hours: 3
2. Course type
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: VI/ 3 rd year
4. Pre-requisites for this course (if any): 221BIO-3
5. Co-requisites for this course (if any): non

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended	-	
3	E-learning	-	
4	Correspondence	-	
5	Other	-	

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	Lecture	30
2	Laboratory/Studio	30
3	Tutorial	
4	Others (specify) E-learning	
	Total	60
Other Learning Hours*		
1	Study	27
2	Assignments	3
3	Library	5
4	Projects/Research Essays/Theses	5
5	Others (specify): Office hours	10
	Total	50

* 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

This course will increase student's knowledge about the value and importance of insects. The students will be able to identify major orders and families of insects. They will also learn to identify the common pests and the principles of insect pest management. Acquire skills for collecting, mounting, and preserving insects for scientific study. Students will be encouraged to Learn about the classification, biology, ecology, behavior, and control of insects. This course also includes training students on the skills of dissection and observation of structural and functional differences in the practical session.

2. Course Main Objective

After completing this course student should be able to :

1. List major orders and families of insects.
2. Identify the common pests and the principles of insect pest management.
3. Define the classification, biology, ecology, behavior, and control of insects.
4. Practice skills for collecting, mounting, and preserving insects for study.
5. Correlate structural to functional characteristics in the practical session.
6. Evaluate the essential characteristic of insects and their importance to human.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.1	List major orders and families of insects.	
1.2	Identify the common pests and the principles of insect pest management.	
1.3	Define the classification, biology, ecology, behavior, and control of insects	
2	Skills :	
2.1	Practice skills for collecting, mounting, and preserving insects for study.	
2.2	Correlate structural to functional characteristic in the practical session.	
2.3	Evaluate the essential characteristic of insects and their importance to human.	
3	Competence:	
3.1	Work independently and as a team work	
3.2	Manage resources, time and other members of the group	
3.3	Communicate knowledge with others	

C. Course Content: Theoretical

No	List of Topics	Contact Hours
1	- General introduction to Entomology, general definition of entomology, the economic importance of insects, general characteristic of insects	2
2	External anatomy (integumentary structures, insect body)	2
3	Head and its appendages	2
4	Thorax and its appendages (Major wing and legs)	2
5	- The Abdomen and its appendages.	2
6	Internal anatomy: digestive system and digestion	2
7	Excretory system - respiratory system	2
8	Nervous system and sense organs	2

9	Circulatory system – reproductive system	2
10	- Reproductive system, Glands - Embryogenesis	4
11	Development and types of life cycle	4
12	Insect (habitat, adaptation, behavior)	2
13	- Insect classification (Apterygota- Pterygota)	2
14		
Total		30

Practical:

No	List of Topics	Contact Hours
1	Microscopic slides for identification of antennae	2
2	Microscopic slides for identification of mouth parts	6
3	Microscopic slides for identification of wings	2
4	Microscopic slides for identification of legs	4
5	Representative examples of insect within different taxa of class insecta	8
6	Dissection of model of insect for identification different body organ systems	4
7	Examination of representative examples of types of larvae, pupae within different taxa of class insecta	4
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:		
1.1	List major orders and families of insects.	Lectures	Final and semester exams
1.2	Identify the common pests and the principles of insect pest management.	Lectures	Final and semester exams
1.3	Define the classification, biology, ecology, behavior, and control of insects	Lectures	Final and semester exams
2.0	Skills :		
2.1	Practice skills for collecting, mounting, and preserving insects for study.	Student negotiations	Class room activity
2.2	Correlate structural to functional characteristic in the practical session.	Student negotiations	Class room activity
2.3	Evaluate the essential characteristic of insects and their importance to human.	Student negotiations	Class room activity
3.0	Competence:		
3.1	Work independently and as a team work	Student negotiations	Class room activity

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.2	Manage recourses, time and other members of the group	Student negotiations	Class room activity
3.3	Communicate knowledge with others	Student negotiations	Class room activity

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Theoretical First Exam	7	10%
2	Practical First Exam	7	5%
3	Theoretical Second Exam	12	10%
4	Practical Second Exam	12	5%
5	Practical final Exam	12	10%
6	Assays , oral presentations, blackboard activity	continuous	10%
v	Theoretical 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 hours per week as office hours
- Academic advisor 10 hours per week

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Gullen, P. J. and P. S. Cranston (2004): An Outline of Entomology 3rd edition Blackwell Science Ltd.
Essential References Materials	Chapman, R.F.)1998) Insects: structure and function (4th edition). Richard J. Elzinga (2003). Fundamentals of Entomology (6th Edition).
Electronic Materials	Websites
Other Learning materials	Films related to the course

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) 40 seats/ class room/ 20 seats/lab Computer access with data show and internet
Technology Resources (AV, data show, Smart Board, software,	Data show, Overhead projector
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Models Microscopes

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation	Student	direct
Student-faculty meeting	Faculty, Program Leaders	indirect
Departmental council discussions	Staff members	indirect
Discussion with the group of faculty teaching the same course	Peer Reviewer	indirect
Periodical departmental revisions of each method of teaching	Peer Reviewer	indirect

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	
Reference No.	
Date	