هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title:	*General Control*
Course Code:	*BIO1402*
Program:	*Bachelor of Science in Biology*
Department:	*Department of Biology*
College:	*Faculty of Science*
Institution:	*University of Tabuk*
Version:	***Course Specification Version Number***
Last Revision Date:	*September 2023*

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours:					
3 Credit (2 theoretical + 1 practical) hours.					
2. Course type					
A.	☐University	☐ College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (7th Level / 4th year)					
4. Course general Description:					
The course includes definition of pests and pest management, difference between the concepts of control and eradication, historical examples of negative economical and health impacts, historical examples about pest management methods, types of different pests and pathogens in relation to public health and agriculture, important data needed to set proper control strategies against pests, how and when to use pest control strategies based on calculations of certain thresholds, different pest control methods and strategies, advantages and disadvantages of each method, types and classification of pesticides, general concepts of the integrated Pest Management (IVM) and its advantages and disadvantages.					
5. Pre-requirements for this course (if any)**:**					
General Entomology (BIO1302).					
6. Co-requirements for this course (if any)**:**					
None					
7. Course Main Objective(s):					
By the end of this course, the students should be able to: - Identify the term pest and how to define pest species. - Identify the history of best methods for pest management. - Distinguish between natural and applied control methods. - Identify the different methods of applied pest management. - Describes how to use the correct method of control in accordance with the different habitats. - Understand the Integrated Pest Management (IPM). - Describes the advantages and disadvantages of each method of pest control.					

2. Teaching mode (mark all that apply)

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

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	30
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		**60**

B. 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	To define pest, its different types and pest threshold.	K1	-Lectures. -Class discussion. -Group discussion. -Case studies.	-Quizzes -Midterm examination. -Final examination. -Class discussion and participation. -Homework (Problem-solving).

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.2	To describe different methods of pesticides.	K2	-Lectures. -Class discussion. -Group discussion. -Homework assignments. -Case studies.	-Quizzes -Midterm examination. -Final examination. -Class discussion and participation. -Homework assignments.
2.0	**Skills**			
2.1	To apply web-based searching on the topics of pest control.	S1	-Lectures. -Short essay -Class discussion. -Group discussion. -Brainstorming.	-Quizzes -reports -Final examination. -Class discussion and participation. -Homework (Problem-solving).
2.2	To differentiate between types and classifications of pest control.	S2	-Lectures. -Short essay -Class discussion. -Group discussion. -Brainstorming.	-Quizzes -reports -Final examination. -Class discussion and participation. -Homework (Problem-solving).
2.3	To write scientific report on a pest control strategy after a field trip.	S3	-Lectures. -Short essay -Class discussion. -Group discussion. -Brainstorming. - Field trip	-Quizzes -reports -Final examination. -Class discussion and participation.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
				- Homework (Problem-solving).
2.4	To compare between natural pest control and other types of pest control	S4	-Lectures. -Short essay -Class discussion. -Group discussion. -Brainstorming.	-Quizzes -reports -Final examination. -Class discussion and participation. -Homework (Problem-solving).
3.0	**Values, autonomy, and responsibility**			
3.1	To justify the need and ways to apply pest control techniques to solve a given issue.	V1	-Lectures. -Lab work -Class discussion. -Group discussion.	-Class discussion and participation. -Homework (Problem-solving).
3.2	To question the reasons behind the spread of a given pest in a given area	V2	-Lab demonstration. -Class discussion. -Group discussion.	-Class discussion and participation. -Homework (Problem-solving).

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction, what is a pest? Historical lesson of pest.	2
2.	The different pest categories	2
3.	Identification of pest thresholds	2
4.	Natural control parameters	2
5	Mechanical control	2
6.	Physical control	2
7.	Cultural control	2

8.	Biological control 1	2
9.	Biological control 2	2
10.	Genetics control	2
11.	Regulatory control	2
12.	Chemical control, classification of pesticides 1	2
13.	Chemical control, classification of pesticides 2	2
14.	Pest resistance towards insecticides	2
15.	Integrated pest control	2
Total		**30**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Class Participation	During whole teaching period	5
2.	Homework (Problem-solving)	3 to 13	5
3.	Short Exams (Quizzes)	During whole teaching period	5
4.	Midterm Theoretical Examination	8-9	20
4.	Reports (For Practical)	During whole teaching period	10
5.	Final Practical Examination	15	15
6.	Final Theoretical Examination	17	40

*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	- Dent, D., & Binks, R. H. (2020). Insect pest management. Cabi. - Omkar, O. (2016). Ecofriendly Pest Management for Food Security. Elsevier Ltd.

	- Paul, A. V. (2008). Insect pests and their management.
Supportive References	- A manual of forensic entomology. British museum (Natural History), London. Smith (1986).
Electronic Materials	- http://www.scientificpest.com.au/ - http://www.masapestcontrol.com.sa/Pest-Control-Equipment.html - http://www.ipm.ucdavis.edu/
Other Learning Materials	Not applicable (N.A.)

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	- Well-equipped classrooms and laboratories that accommodate a sufficient number of students.
Technology equipment (projector, smart board, software)	- Multimedia projectors and smart boards.
Other equipment (depending on the nature of the specialty)	- Equipment for environmental monitoring and impact assessment required. - Electronic resources. - Transportations means for field trips.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students. - Faculty members.	Indirect & direct: - Questionnaires. - Meetings.
Effectiveness of Students assessment	- Quality and development committee. - Department chair.	- Course report. - Program annual report.
Quality of learning resources	- Plan and program committee. - Students. - Staff members.	Indirect & direct: - Questionnaires. - Meetings. - Reports.
The extent to which CLOs have been achieved	- Quality and development committee. - Peer Reviewer. - Program leaders.	Indirect & direct: - Questionnaires. - Meetings. - Reports.

Assessment Areas/Issues	Assessor	Assessment Methods
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	PROGRAMS AND STUDY PLANS COMMITTEE
REFERENCE NO.	
DATE	SEPTEMBER 2023