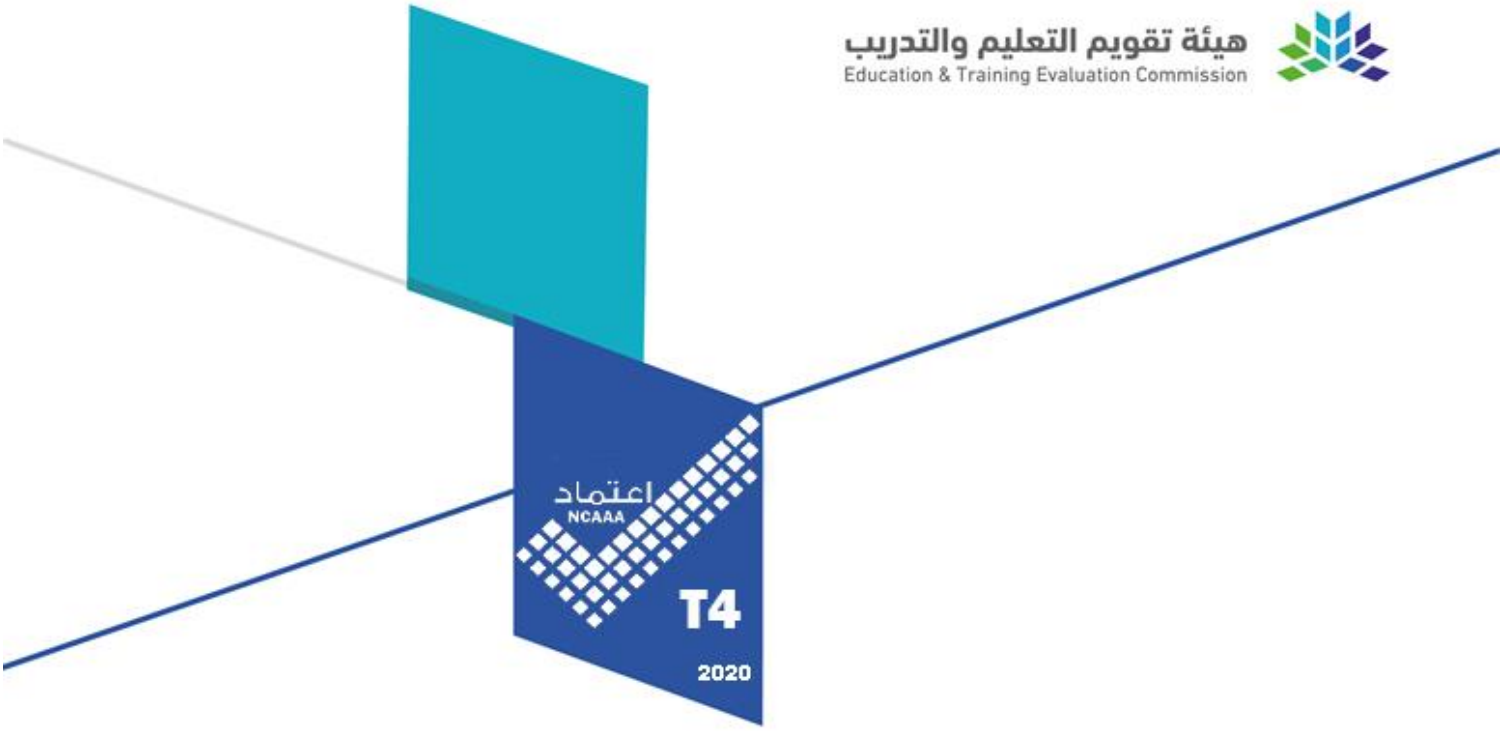
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	Parasitology
Course Code:	**Zoo 352-2**
Program:	**Biology B.Sc.**
Department:	**Biology**
College:	**Science**
Institution:	**Jazan University**

Table of Contents

A. Course Identification

1. Credit hours:
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: 6th level/3rd year
4. Pre-requisites for this course (if any)**: Zoo 251-3**
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**	26h	86.7%
2	**Blended**	4h	13.3%
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	20
2	**Laboratory/Studio**	20
3	**Tutorial**	
4	**Others** (specify)	
	Total	40

B. Course Objectives and Learning Outcomes

1. Course Description

Course Title	Course No.	Credit Units			Year	Level	Pre-Requisite
		Theoretical	Practical	Total			
Parasitology	352-ZOO	1	1	2	3rd	6th	251Zoo-3

1) Course Objectives:
A comprehensive review of parasitology and detailed study in human and animal parasites. Medical and economic importance of the parasites and how to detect and the methods of protection

2) Course Contents:
Introduction to biological associations – Definition of parasitism – Host parasite relationship – Epidemiology of parasitic diseases – Examples of human & animal parasites (parasitic protozoa, trematodes, cestodes, nematodes, ectoparasites, intermediate hosts & vectors of arthropods,and parasitic insecta) - Parasite detection (biological & serodiagnosis).

3) Practical:
Examination of parasite life cycle through detection of adult worms or slides of parasite, eggs, cercaria, redia, or sections illustrating the internal structures of the parasite. Introduction to immune-diagnosis of parasites

4) Assessment:
Exams: Essay/Objective, oral, class work, research work, translations
Practical: Identifying samples and slides, drawings.
Quiz 20%
Practical 30%
Final 50%

5) Teaching Methods:
Lectures, field trips, photographs, slides, multimedia, web-based learning. Samples, Light microscopes, glassware, chemicals.

6) Text Books:
- Loker, E.S. and Hofkin, B.V. (2015) parasitology. A conceptual approach. Garland science. Taylor and Franis group. New York and London. 577 pages.

7) References:
- Cox F.E.G. (2004) Modern Parasitology. Blackwell Science Publishers, Oxford.
- Smith J.D. (1994). Introduction to Animal Parasitology. Cambridge University Press, Cambridge.
- Mahlhorn H. (1988) Parasitology in Focus. Springer- Verlag, Berlin.

2. Course Main Objective

1. What is the main purpose for this course?
- Inter-specific biological relationships
- Factors influencing parasitism.
- Parasitic protozoa.
- Platyhelminths
- Trematoda
- Cestoda.
- Nematoda
- Filariasis.
- Pathogenicity of parasitic Arthropods (ticks and mites).
- Parasitism of lice and fleas.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Recall information relevant to features and diseases related to parasitism.	K1.1
1.2	Define labelled diagrams and life cycles of animal parasites explaining functions of their different organs.	K2.3
1.3	Interpret theories and hypothesis related to parasitism and relationship between different organisms.	K3.2
2	**Skills :**	
2.1	Debate aspects relevant in the course of host parasite relationships.	S1.1
2.2	Discuss the different structures and features related to the animal parasites.	S2.2
2.3	Appraise and evaluate parasite control theories.	S3.2
3	**Values:**	
3.1	Demonstrate the ability to use IT and learning resources.	V1.1
3.3	Illustrate ability to work in groups.	V3.1

C. Course Content

No	List of Topics	Contact Hours
1	**1. Introduction: definitions; principles and concepts.**	**2**
2	**2. Introduction to parasitic protozoans**	**2**
3	**3.Phylum Parabasalia, order Trichomonadida, order Opalinida; Amebas; phylum Apicomplexa: order Eugregarinorida**	**4**
4	**4. Phylum Apicomplexa: order Haemosporida; Phylum Ciliophora:order Vestibuliferida**	**4**
5	**5. Introduction to phylum Platyhelminthes; Class Trematoda: subclass; subclass Digenea**	**3**
6	**6. Digenean diversity: orders Strigeiformes, Echinostomatiformes, Plagiorchiformes, and Opisthorchiformes**	**3**
7	**7. Class Monogenoidea: order Gyrodactylidea and Polystomatidea; class Cestoidea: form and function.**	**3**
8	**8. Tapeworm diversity ,Tapeworm diversity cont.; phylum Nematomorpha, phylum Acanthocephala**	**3**
9	**9. Phylum Nematoda: form and function; orders Trichurida, Rhabditida, Strongylida, and Ascaridida.**	**3**
10	**10. Phylum Nematoda: orders, Oxyurida, Spirurida Filaroidea, and Camallanina.**	**3**
11	**11. Phylum Arthropoda: form and function; parasitic insects: orders; Mallophaga and Anoplura, order Siphonoptera.Parasitic arachnids subclass Acari ticks & mites**	**6**
		36

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
1.1	Recall information relevant to features and diseases related to parasitism.	• Lectures • Lab work	• Quizzes, MCQs, • Short Answer Question • Oral exam
1.2	Define labelled diagrams and life cycles of animal parasites explaining functions of their different organs..	• Lectures • Group Discussion • Lab work	• Short Answer Question • Quizzes, MCQs,
1.3	Interpret theories and hypothesis related to parasitism and relationship between different organisms.	• Lectures, • Web-based work	• assignments, • SAQ
2.0	**Skills**		
2.1	Debate aspects relevant in the course of host parasite relationships.	• Lectures • Lab work	• Lab work assessment • Assignments
2.2	Discuss the different structures and features related to the animal parasites.	• Lectures, • Lab work	• Assignments • Lab work assessment
2.3	Appraise and evaluate parasite control theories.	• Lectures, • web-based work	• Assignments
3.0	**Values**		
3.1	Demonstrate the ability to use IT and learning resources.	• Field trips • Lab Work	• Lab work assessment • Group Assignment
3.3	Illustrate ability to work in groups.	• Lectures Group Works	Group Assignment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Homework assignment	2	2
2	Oral test	4	2
3	Lecture Quizzes (written test)	6	3
4	Mid-term exam (written test)	8	20
5	Oral Presentation	10	3
6	Group project	12	5
7	Final practical exam	14	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 :

Each group of students is assigned to a member of staff who will be available for help and academic guidance office hours at specific hours on daily basis.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	**- Loker, E.S. and Hofkin, B.V. (2015) parasitology. A conceptual approach. Garland science. Taylor and Franis group. New York and London. 577 pages.** **- J.D. Smyth (1994). Introduction to Animal Parasitology. 3rd ed. Cambridge University Pres.**
Essential References Materials	**- Cheng, T.C. (1984). General Parasitology. 2nd ed. Academic Press.** **Heins Mehlhorn (1988). Parasitology in Focus. Springer- Verlag**
Electronic Materials	www.parasitology.com
Other Learning Materials	

2. Facilities Required

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

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course Contents		
Course Facilities		
Teaching Methodology		
Assessment Quality		
Assessment Methodology		

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	12 Febraury, 2021