Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIED

SCIENCES

Faculty of Laboratory medicine

Department of PARASITOLOGY

Course Specification of Medical Entomology
Course No. (03.04 ,345)

I. Course Identification and General Information:						
1	Course Title:	Medical Entomology				
2	Course Code & Number:	03,04,345				
3	Credit Hours:	Theory Hours				
		Lecture	Exercise	Practical	Credit Hours	
		2	0	2	3	
4	Study Level/ Semester at which this Course is offered:	2nd Level / 2nd Semester				
5	Pre –Requisite (if any):	None				
6	Co –Requisite (if any):	None				
7	Program (s) in which the Course is Offered:	Faculty of Laboratory medicine				
8	Language of Teaching the Course:	English				
9	Study System:	semester				
10	Mode of Delivery:	Regular				
11	Location of Teaching the Course:	University Campus				
12	Prepared by:	Dr / Ali gamali AL-Hawri				
13	Date of Approval:	2022-2023				

II. Course Description:
This course provides the student with intensive information about insects and Arthropods taxonomy, classification, morphology, medical importance, laboratory identification and control.

III. Alignment Course Intended Learning Outcomes with program outcomes			
III. Course Intended Learning Outcomes (CILOs)		**Referenced PILOs**	
A. Knowledge and Understanding: ***Upon successful completion of the course, students will be able to:***			
a1	**Describe** the major diseases caused by vector borne pathogens	**A3**	Define different diagnostic markers and laboratory tests for each human body organs and common medical conditions
B. Intellectual Skills: ***Upon successful completion of the course, students will be able to:***			
b1	**Demonstrate** advanced knowledge of his Laboratory Medicine specialist area; such as medical microbiology	B2	**Demonstrate** advanced knowledge of his Laboratory Medicine specialist area; such as genetics. cellular pathology. clinical biochemistry. clinical immunology. hematology and transfusion science. and medical microbiology
C. Professional and Practical Skills: ***Upon successful completion of the course, students will be able to:***			
c1	Apply the measures adopted for control and eradication of medically important insects and arthropod to prevent spread of the disease.	**C2**	Apply the safety laboratory rules and regulations in handling and processing of test samples and maintaining working environment.
D. Transferable Skills: ***Upon successful completion of the course, students will be able to:***			
d1	Relate The morphological features of insects and arthropod.	**D2**	- Demonstrate oral and written effective communication skills.

IV. Alignment Course Intended Learning Outcomes with Teaching Strategies and Assessment methods :			
(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1	**Describe** the major diseases caused by vector borne pathogens	• Interactive lectures • Self-learning • Discussion	• Written exam (mid and final terms and quizzes)
(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1			
C Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
c1	Apply the measures adopted for control and eradication of medically important insects and arthropod	• Practical session • Training • Discussion • Self-learning	• Written exam (mid and final terms. • Final practical exam • Final oral exam Assignment:
(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1	Use the simple and compound microscopes	• Seminars • Discussion	Final oral exam • Assignment: - Research - Homework - Team work

V. Course Content:					
A – Theoretical Aspect:					
NO.	**Units/Topics List**	**Sub Topics List**	**Number of Weeks**	**contact hours**	**Learning Outcomes (CILOs)**
1	Role of Arthropods in the transmission of diseases.	Define Mode of transmission	1	2	a1
2	Mosquito:	Morphology and Bionomics of Anophales, Culex, Aedes and Mansaonia.	1	2	b1
3	Mosquito	Mosquito – Borne diseases and their control	1	2	a1,b1
4	Phlebotomus:	Morphology, Life- History and control.	1	2	b1
5	House fly	Morphology, Life cycle, disease relationship and control.	1	2	b1
6	Tse – Tse fly (glossina)	morphology, life-cycle and public health importance.	1	2	b1
7	Fleas:	Morphology Life cycle disease transmitted and control	1	2	b1
8	MED TERM		1	1	
9	Louse:	Morphology, Life cycle disease transmitted and control.	1	2	a1,b1
10	Bed Bug:	Life cycle and control.	1	2	a1,b1
11	Ticks:	Morphology, Life cycle, disease transmitted and control.	1	2	a1,b1
12	Sarcoptis scabiei:	Morphology, lifecycle, public health importance and control.	1	2	a1,b1
13	Cyclops and Public Health importance		1	2	a1,b1
14	Simulium (black fly):	Morphology, Life cycle, disease transmitted and control.	1	2	a1,b1
15	Myiasis:	Morphology, Life cycle, disease transmitted and control.	1	2	a1,b1

16	Final Theoretical exam		1	2	a1,b1
			16	31	

B - Practical Aspect: (if any)

Order	Tasks/ Experiments	Number of Weeks	contact hours	Learning Outcomes
1	Mosquito: Morphology and Bionomics of Anophales, Culex, Aedes and Mansaonia.	1	2	c 1
2	Morphology of Phlebotomus and House fly .	1	2	c 1, d1
3	Morphology of Simulium (black fly) .	1	2	c 1, d1
4	Morphology of Bed Bug **and** Louse.	1	2	c 1, d1
5	Morphology of Fleas.	1	2	c 1
6	Morphology of Myiasis .	1	2	c 1
7	Morphology of Sarcoptis scabiei.	1	2	c 1
8	Morphology of Ticks.	1	2	c 1
9	**Final practical exam**	1	2	c 1
Number of Weeks /and Units Per Semester		9	18	

V. Teaching Strategies of the Course:

1-	Lectures
2-	Practical session

VI. Assessment Methods of the Course:	
No	**Assignment**
1	Written Exams (Short Essays) and Quizzes
2	Multiple Choice Questions (MCQ)
3	Practical Exams (PE)
4	Assignment

VII. Assignments:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignment		5	5%	d1
2	**Midterm Exam**	8	15	15%	a1,b1
3	**Practical exam**	12	30	30%	c1
4	**Final Exam**	16	50	50%	a1,b1
	Total	100		100%	

IX. Learning Resources:

1- Required Textbook

1-	: Gullan PJ & PS Cranston (2010),The Insects.
2-	An Outline of Entomology, 4th Ed. Blackwell Science , Oxford , 584 pp.

2- Essential References.	
1-	Bland, R. . and H. E. Jaques. How to Know the insects .Wm C. Brown.
2-	Elzinga, R. J. Fundamentals of Entomology. Prentice Hall
3- Electronic Materials and Web Sites *etc*.	
1-	Borror, .J., C. A. Triplehorn, and N. F. Johnson. 1992.
2-	An introduction to the study of insects.
3-	Sixth ed. Saunders College Publishing.

XI. *Course Policies:*	
1	**Class Attendance:** Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	**Tardiness:** -If the student dose not attend for more than 6 times, the student will be obligated to withdrew from the course
3	**Exam Attendance/Punctuality:** No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	**Assignments & Projects:** Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	**Cheating:** Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	**Forgery and Impersonation:** Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	**Other policies:** The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration