

Theoretical and practical courses-Ilam University of Medical Sciences

Introduction of the course: Malaria Studies, first semester / second / summer, academic year 2020-2021

School: Health Department: Biology and Carrier Control

Course and degree: Carrier Biology and Control, Bachelor

Day, time and place: Monday 8-10

Number and type of unit (theoretical / practical): 2 +

Name of the person in charge of the course (lecturer): Dr. Ali Ashraf Eivazi, Dr. Jahangir Abdi

Prerequisite Courses: General Medical Entomology Office Address: School of Health, Department of Biology and Carrier Control

Phone and contact days: Office hours

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General purpose of the course: Familiarity of students with malaria, causative agent, vector, epidemiology, methods of diagnosis and treatment of the disease.

Specific or partial objectives of the lesson: The specific objective is better to be written in a behavioral way (the behavioral objective has the audience, the behavioral verb, the degree and criteria, and the conditions for doing it):

1- At the end of the lesson, the learner can write the morphology, biology, classification of mosquitoes and their distribution with 80% accuracy in the exam sheet.

2- At the end of the course, the learner will be able to write the status of malaria in Iran, the Eastern Mediterranean region, and the world with 70% accuracy on a test sheet.

3- At the end of the course, the learner will be able to write the ecology of malaria vectors in Iran with 80% accuracy on an exam sheet.

4- At the end of the course, the learner will be able to perform entomological studies related to malaria and their application in disease management with 80% accuracy on the sheet.

Write an exam.

5-At the end of the course, the learner will be able to write the epidemiological calculations of malaria with 75% accuracy on a test sheet.

6- At the end of the lesson, the learner will be able to write the resistance status of malaria vectors with 80% accuracy on the test sheet.

7- At the end of the lesson, the learner will be able to write the malaria disease management program in a hypothetical area with 80% accuracy on the exam sheet.

8- At the end of the lesson, the learner can identify the vectors, parasites, and dissect the salivary glands of the vectors with 70% accuracy in the presence of the teacher.

Student duties (student assignments during the semester): Regular participation in meetings, previous study of the course materials of each session, performing the presented assignments, preparing samples of insects and delivering them (2 points).

Main sources of the course) Main sources by observing the principles of source writing and giving an address for their preparation, including library, bookstore, and internet (...)

- 1- Lane, R. P. Medical Insects and Arachnids. Chapman & Hall, 1993.
- 2- Warrell, D. A., & Gilles, H. M. (2002). Essential malaria (4th ed.). London: New York: Arnold ..
- 3- World Health Organization. (2021). World Malaria Report 2020. Geneva, World Health Organization.
- 4- Petrić, Dušan, Clive Boase, John Lane, Marija Zgomba, Christine Dahl, and Achim Kaiser. Mosquitoes and their control. Vol. 2. Heidelberg: Springer, 2010.
- 5- World Health Organization. (2007). Malaria elimination: a field manual for low and moderate endemic countries. Geneva, World Health Organization.
- 6- World Health Organization. (2019). Guidelines for malaria vector control. Geneva, World Health Organization.
- 7- Zaeem M, Sidi Rashti SM, Saebi M (translators). Generalities of medical insects. Tehran: University of Tehran Press, 2003.
- 8- Moulin, Gary Richard Translated by Seyed Hassan Mousa Kazemi, Hassan Bakhshi, Abolfazl Ataei, Colicids, Medical Carriers: Including the Illustrated Key of Iranian Colicids, Tehran: Noor Danesh, 2012.
- 9- Zare M, patriot H (translators). Control of malaria vectors, toxins used in residual spraying. Tehran: Seda, 2001.
- 10- Faqih M., Malaria Studies and Malaria Eradication, Tehran: University of Tehran, 1348.

Teaching methods + teaching aids used: lectures with the active participation of learners, use of boards, visualizer, slide show, display of dried samples and insect slides.

Methods and time of assessment and evaluation of the student and the bar related to each evaluation: (Type of exams in terms of how to design the question - loading - time of exams and assignments should be mentioned): Class assignment 3 points, final exam 17 points. Questions include multiple choice, vacancy, true / false, short answer and descriptive.

Lesson rules and expectations from students:

- 1- The active participation of the student along with observing the relevant order and principles, respecting the manners of the class and other students, as well as the correct use of materials and teaching aids are essential.
- 2- The presence of students in extraordinary classes is essential. The time of these classes will be informed in advance to the class representative and the education department of the faculty.
- 3- According to the current regulations of the university, absence from more than 3 sessions of the classroom is not allowed. Obviously, this figure also includes justified absence.

Schedule and anticipated provisions of each session

Session	Topic	Lecturer
1	History and importance of malaria	Dr.eivazi
2	Epidemiology of malaria, the situation of malaria in Iran and the world	
3	Adult and larval morphology	
4	Classification and ecology of colicids	
5	Malaria transmission cycle and factors affecting it	
6	Malaria vector colicids in Iran	
7	Classification of Plasmodiums	
8	Plasmodium parasitology	
9	Identification and culture of Plasmodiums	
10	Drug resistance in Plasmodiums	
11	Computational epidemiology of malaria	
12	Climate change and its effects on malaria	
13	Management and control of malaria	
14	Methods of controlling malaria vectors	
15	Biological and environmental control of malaria vectors	
16	Resistance to toxins	
17	National Malaria Elimination Program	