Department of Department of General Sciences

College of Basic education

University of Salahaddin

Subject : Parasitology and Immunology

Course Book : 4th stage

Lecturer's name : Dr. Suzan A. Sharif

Academic Year: 2022-2023

Course Book

1. Course name	**Parasitology and Immunology (Theory)**
2. Lecturer in charge	**Dr. Suzan A. Sharif**
3. Department/ College	**General Science\ Collage of Basic Education**
4. Contact	**e-mail: suzan.sharif@su.edu.krd** **Tel: 07504437564**
5. Time (in hours) per week	**Theory: 3**
6. Office hours	
7. Course code	
8. Teacher's academic profile	1993 B Sc University of Salahaddin, Erbil, Iraq. 2004 M Sc in Microbiology, Al-Neelain University. 2007 PhD in Microbiology, Al-Neelain University. Teaching Experience - Practical undergraduate classes, practical microbiology, Al-Neelain University. - lecturer of food industry, histology, parasitology and genetics. - Lecturer of Microbiology, Parasitology and Zoology at the college of basic education. Duties : Teaching, examination, laboratory supervision and thesis project supervision. Publication: 1. Incidence and Isolation of Bacteria Associated With Nosocomial Urinary Tract Infection (UTI) In Sudanese Woman. Research Journal of Microbiology, 1(6): 534-539. 2. Sterilization of Culture Media for Microorganisms Using a Microwave Oven Instead of Autoclave. Rafidain journal of science 28 (1E), 1-6. 3. Formulation of Alternative Culture Media from Natural Plant Protein Sources for Cultivation of

	Different Bacteria and Fungi. Zanco Journal of Pure and Applied Sciences 31 (4), 61-69. 4. Synergistic Effect of Different Plant Extracts and Antibiotics on Some Pathogenic Bacteria. Science Journal of University of Zakho 8 (1), 7-11.
9. Keywords	

11. Course objective

The aim of the course is to develop basic knowledge to identify the parasite, diagnose, the diseases caused by them, prevent and control parasitic diseases. At the end of the course the student should be able to: state the definition and classification of parasites, list the organs or the systems affected by the parasite and describe the pathogenesis, signs and symptoms, describe the geographical, life cycle, morphology at different stages, sources of infection and mode of transmission of each parasite with a view of prevent and control of parasite diseases.

12. Student's obligation

The role of students and their obligations throughout the academic year is the attendance and completion of all tests, exams.

13. Forms of teaching

1. Data show
2. White board
3. Printed lectures

14. Assessment scheme

1.

Semester	Theory
1st midterm	**20**
2nd midterm	**20**
Final Exam.	**60**
Total 100%	**100**

16. Course Reading List and References:

1- Concise Medical Parasitology, A. Molan, A. Faraj. Erbil , 1th edition, 2010.

2- Microbiology – An introduction. Tartora F. Case. London, (8th edition References), 2004.

3- Monica Cheesbrough. District Laboratory Practice in Tropical Countries, Part 1, Second Edition, 2006.

4- Medical Parasitology, DawitAssafa, EphremKibru et al. Funded under USAID Cooperative Agreement No. 663-A-00-00-0358-00, 2004.

5- Internet.

17. The Topics / by	**Dr. Suzan**

Parasitology and Immunology

Introduction to parasitology

Classification of parasites

General Characteristics of Protozoa

Intestinal and urogenital protozoa

- *Entameobahistolytica*(Amoebae)
- *Balantidium coli* (Ciliates)
- *Giardia lamblia* (Flagellates)
- *Trichomonasvaginalis*(Flagellates)
- *Cryptosporidium parvum* (Sporozoa)
- *Isospora belli* (Sporozoa)

Blood and tissue protozoa:

- *Trypanosoma* (*T. brucei*and *T. cruzi*)
- *Leishmania* (*L. donovani, L. tropica, L. braziliensis, L. Mexicana*and, *L. peruviana*)
- *Plasmodium* (*P. falciparum, P. ovale, P. malariae*and, *P. vivax*)
- *Toxoplasma gondii*

Nematodes (Roundworms)

General Characteristics of Nematodes

A. Intestinal helminthes:

- *Ascarislumbricoides*(Large intestinal roundworm) , *Trichinellaspiralis* (Trichinosis)
- *Trichuristrichiura* (Whipworm) , *Enterobiusvermicularis* (Pinworm)
- *Necatoramericanes*and *Ancylostomaduodenale*(Hookworms)
- *Strongyloidesstercoralis* (Threadworm)

B. Blood and tissue helminthes:

- *Dracunculusmedinensis* (Guinea worm)
- *Ancylostomabraziliensis, Ancylostomacaninum* (Cutaneous larva migrans)
- *Wuchereriabancrofti* (Filariasis)
- *W. (Brugia) malayi* , *Onchocerca volvulus* (Blinding worm)

Cestodes (Tapeworms)

General Characteristics of Cestodes

- *Teniasolium* (Pork tapeworm)

- *T. saginata* (Beef tapeworm) **Trematodes (Flukes; Flatworms)** **General Characteristics of Trematodes** - **Blood flukes:** *Schistosomamansoni*, *S. japonicum*and, *S. hematobium* - **Intestinal flukes:** *Fasciolopsis busk* - **Liver flukes:** *Fasciola hepatica* - **Lung flukes:** *Paragonimus westermani* **Arthropods and Ectoparasites** **General Characteristics of Arthropodes** **Introduction to Immunology** Introduction of immunology field , Pathogens we are immunized against Innate vs. adaptive immunity , Overview of adaptive immunity	