

University of Diyala – College of Medicine
2026-2027 Third
year- first term

Subject	15 weeks			Credits
	Theory	Practical	Seminars, tutorials	
Pharmacology	45	30		4
Microbiology	45	30	-	4
parasitology	30	30	-	3
Surgery	15	-		1
Community and family medicine	15	30	-	2
medicine	30	30	-	3
Pathology	30	30		3
Immunology	15	30	-	2
Total	225	210	-	22

Third year- second term

Subject	15 weeks			Credits
	Theory	Practical	Seminars, tutorials	
Pharmacology	45	60		5
Microbiology	30	30	-	3
parasitology	15	30	-	3
Surgery	15	-		1
Community and family medicine	30	-	-	2
medicine	30	-	-	2
Pathology	30	30		3
Immunology	30	-	-	2
Total	225	150	-	21

Immunology Syllabus 1. Introduction to immune system

2. Innate (Nonspecific) and specific immune response

3. Antigens

4. Complement system

**5. Immunoglobulins: Structure and
Function**

6. Immunoglobulins: Isotypes, Allotypes and Idiotypes

7. Immunoglobulins: Genetics

8. Immunoglobulins: Ag-Ab Reactions and Selected Tests

9. Antibody Formation

10. Immunization

11. Immune cells and Ag Recognition

12. MHC and T cell receptors

13. Ag processing and presentation

14. Cell-cell interactions in immune responses (part 2)

15. Immunoregulation

16. Tolerance

17. Autoimmunity

18. Hypersensitivity reactions (part 1)

19. Hypersensitivity reactions (part 2)

20. Tumor Immunology (part 1)

21. Tumor Immunology (part 1)

22. Immunodeficiency (part 1)

23. Immunodeficiency (part 1)

24. Covid-19

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Protozoology الكورس الدراسي الأول

Practical	Theory	الأسبوع
Introduction of practical / diagnostic parasite	Introduction , Basic principle &concept: Host-parasite relationships	1
Identification of parasitic infections by direct and indirect method	Classification of parasites	2
<i>Entamoeba histolytica</i> (Trophozoite&cyst stage) slides Morphology, lifecycle , lab. diagnosis	<i>Entamoeba histolytica</i> (Trophozoite&cyst stage) morphology, lifecycle, diagnosis, pathogenesis,clinical signs,treatment	3
<i>E. coli</i> , <i>Endolimax nana</i> & <i>Iodamoeba butschlii</i> slides Morphology, lifecycle , lab. diagnosis	<i>E. coli</i> , <i>E. nana</i> and <i>Iodamoeba butschlii</i>) morphology, lifecycle, diagnosis, pathogenesis,clinical signs,treatment, Non – pathogenic commensals, free-living ameba as pathogen	4
<i>Giardia lamblia</i> , <i>Chilomastix mesnili</i> , <i>Trichomonas vaginalis</i> (Morphology, lifecycle , lab.diagnosis)	<i>Giardia lamblia</i> , <i>Chilomastix mesnili</i> , <i>Trichomonas vaginalis</i> morphology, lifecycle, diagnosis,pathogenesis	5
<i>Leishmania donovani</i> , <i>Leishmania tropica</i> , <i>L. brasiliensis</i> & <i>Trypanosoma cruzi</i> (Morphology, lifecycle , lab. diagnosis)	<i>Leishmania</i> types and <i>Trypanosoma cruzi</i> morphology, lifecycle, diagnosis, pathogenesis,clinical signs,treatment	6
Ciliate: <i>Balantidium coli</i> slides (Morphology, lifecycle, lab.Diagnosis)	Ciliate: <i>Balantidium coli</i> , morphology, lifecycle, diagnosis, pathogenesis,clinical signs,treatment	7
<i>Plasmodium vivax</i> , <i>P. ovale</i> , <i>P. falciparum</i> & <i>P. malariae</i> (Morphology, lifecycle , lab.Diagnosis)	<i>plasmodium vivax</i> , <i>P. ovale</i> <i>P.falciparum</i> , <i>P.malariae</i> morphology, lifecycle, diagnosis, pathogenesis,clinical signs, treatment	8
<i>P. falciparum</i> & <i>P. malariae</i> (Morphology, lifecycle , lab.Diagnosis)	<i>P.falciparum</i> , <i>P.malariae</i> morphology, lifecycle, diagnosis, pathogenesis,clinical signs, treatment	9
<i>Toxoplasma gondii</i> Morphology, lifecycle , lab. Diagnosis)	<i>Toxoplasma gondii</i> , morphology, lifecycle, diagnosis, pathogenesis,clinical signs, treatment	10

<i>Cryptosporidium</i> (Morphology, lifecycle , lab. Diagnosis)	<i>Cryptosporidium</i>, morphology, lifecycle, diagnosis, pathogenesis,clinical signs,treatment	11
Isospora (Morphology, lifecycle , lab. Diagnosis)	<i>Isospora</i>, morphology, lifecycle, diagnosis, pathogenesis,clinical signs,treatment	12
sarcocystis(Morphology, lifecycle , lab. Diagnosis)	<i>sarcocystis</i> morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	13
Review of slides	Immunity against parasitic infection	14
Review of slides	Vaccine against parasitic infection	15

الكورس الدراسي الثاني Helminthology

المادة العملية	المادة النظرية	الأسبوع
-Cestoda: <i>Diphyllobothrium latum</i> , <i>Taenia saginata</i> and <i>T. solium</i> Morphology, lifecycle , lab. Diagnosis	Cestoda: <i>Diphyllobothrium latum</i> , <i>Taenia saginata</i> and <i>T. solium</i> morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	1
- <i>Echinococcus granulosus</i> and <i>Echinococcus multilocularis</i> (Morphology, lifecycle , lab. Diagnosis)	<i>Echinococcus granulosus</i> and <i>E. multilocularis</i> morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	2
<i>Hymenolepis nana</i> , <i>H. diminuta</i> & <i>Dipylidium caninum</i> (Morphology, lifecycle , lab. Diagnosis)	<i>Hymenolepis nana</i> , <i>H. diminuta</i> and <i>Dipylidium caninum</i> , morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	3
<i>Fasciola hepatica</i> , <i>Clonorchis sinensis</i> (Morphology, lifecycle , lab. Diagnosis)	Liver flukes , morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	4
<i>Fasciolopsis buski</i> & <i>Heterophyes heterophyes</i> . <i>Paragonimus westermani</i> (Morphology, lifecycle, lab. Diagnosis)	Intestinal flukes & lung flukes morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	5
<i>Schistosoma</i> spp. (Morphology, lifecycle , lab. Diagnosis)	Blood flukes & lung flukes morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	6
<i>Ascaris lumbricoides</i> & <i>Enterobius vermicularis</i> , Morphology, lifecycle , lab. Diagnosis	<i>Ascaris lumbricoides</i> and <i>Enterobius vermicularis</i> morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	7
<i>Trichinella spiralis</i> & <i>Trichuris trichiura</i> and <i>Strongyloides stercoralis</i> (Morphology, lifecycle , lab. Diagnosis)	<i>Trichinella spiralis</i> , <i>Trichuris trichiura</i> and <i>Strongyloides stercoralis</i> morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	8

<i>Ancylostoma duodenale</i> & <i>Necator americanus</i> Morphology, lifecycle, lab. Diagnosis	<i>Ancylostoma duodenale</i> and <i>Necator americanus</i> morphology, lifecycle, diagnosis, pathogenesis, clinical signs, treatment	9
<i>Wuchereria bancrofti</i> , <i>loa loa</i> & <i>Onchocerca volvulus</i> (Morphology, lifecycle, lab. Diagnosis)	<i>Wuchereria bancrofti</i> , <i>loa loa</i> and <i>Onchocerca volvulus</i> morphology, lifecycle, diagnosis, pathogenesis	10
Anopheles: mouth parts, larva, egg, male and female	Anopheles, Gulex: morphology, lifecycle, types of disease transmitted	11
Gulex mouth parts, larva, egg, male and female	<i>Phlebotomus papatasi</i> : morphology, lifecycle, types of disease transmitted	12
<i>Phlebotomus papatasi</i> male, female & <i>Sarcoptes scabiei</i> male, female	<i>Sarcoptes scabiei</i> : morphology, lifecycle, types of disease transmitted	13
Hard tick, male, female, larva	Hard tick, Cyclops of soft tick, morphology, lifecycle, types of disease transmitted	14
soft tick adult, larva, Cyclops	Soft ticks, morphology, lifecycle, types of diseases transmitted	15

Microbiology Syllabus

- Introduction to microbiology
- Cell structure
- Growth and metabolism
- Bacterial genetics
- Pathogenesis of bacterial diseases
- Normal flora
- Antimicrobial agents and resistance
- Staphylococci • Streptococci
- Gram negative cocci, *Neisseria* species
- Gram positive non-spore forming bacilli, *Corynebacterium diphtheria*, *Listeria monocytogenes*
- Gram positive aerobic spore forming bacilli, *Bacillus anthracis*, *B. subtilis*, *B. cereus*
- Gram negative spore forming bacilli, *Clostridia* species
- Gram negative bacilli, *Salmonella*, *Shigella* species
- Gram negative enteric bacilli,

- Proteus species, Pseudomonas
- Gram negative bacilli, Vibrio Cholera
- Gram negative bacilli, Compylobacter, H.pylori
- Gram negative bacilli, H. influenza species
- Gram negative bacilli, Brucella species
- Gram negative bacilli, Yersinia species
- Gram negative bacilli, Bordetella species
- Mycobacterium tuberculosis
- Other mycobacterium species, Spirochetes, Mycoplasma
- Actinomyces, Rickettsia, Chlamydia
- Introduction to Mycology
- The molds, classifications, species types, medical important types, pathogenesis
- The Yeast, classifications, the medical important types, pathogenesis, diseases caused by the yeast
- Antifungal types, Black fungus
- Introduction about virology
- Viral replication, DNA and RNA viruses
- Pathogenesis and host defenses
- Antiviral chemotherapy
- Viral vaccine
- Orthomyxoviruses
- Parainfluenza and Rspiratory syncytial virus
- Measles and Mumps viruses
- Togavirus (rubella virus)
- Rhabdoviruses (rabies)
- Corona viruses and SARS 22
- Picorna viruses, poliovirus, coxsackey
- Enteroviruses and Echovirus
- Rinoviruses and human rotavirus
- Retroviruses

- Viral hepatitis (HAV, HBV, HCV, HDV, HEV)
- Herpesviruses, HSV type 1 and 2,
- Human cytomegalovirus, Varicella-zoster virus
- EBV and Human herpes virus type-8 (Kaposi's sarcoma)
- Poxvirus and Molluscum
- Adenoviruses
- Papovaviruses (HPV) Human polyoma virus
- Human parvovirus B19
- Arthropod-borne viral infection

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