

University of Diyala – College of Medicine
2024-2025
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**
- 19 immunovirology**

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

Helminthology الكورس الدراسي الثاني

المادة العملية	المادة النظرية	الاسبوع
-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 disease 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 Respiratory 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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