

Course Specifications

Course name: Microbiology

Course stage: Second year second Semester.

Credit Hours: 2 hours per week

Course Calendar: Total (30) hours per 15 Week (Theory (2) hrs. Practices (2) hrs.

Teacher name: Bahaa Alaa Farhan Certificate: MSc. Microbiology

Microbiology is the study of the characteristics of tiny, living things, and the way they affect the world. These tiny microbes affect just about everything by either application or disease. Microbiology helps track the negative and positive outcomes of the microbes' work.

Parasitology is the scientific discipline concerned with the study of the biology of parasites and parasitic diseases, including the distribution, biochemistry, physiology, molecular biology, ecology, evolution and clinical aspects of parasites, including the host response to these agents.

Microbiology courses teach the basics of study of parasites, their hosts, and the relationship between them. As a biological discipline, the scope of parasitology is not determined by the organism or environment in question but by their way of life. This means it forms a synthesis of other disciplines, and draws on techniques from fields such as cell biology, bioinformatics, biochemistry, molecular biology, immunology, genetics, evolution and ecology. ..

Methods of teaching (theory)

Direct interview with student to explain.

Lecture ❖

- Discussion ❖
- Video viewing / ❖
- Seminars ❖

Methods of evaluation

- Daily quiz.
- Daily report and seminar.
- Monthly test.
- Final test

Resources and references:

العدد :
التاريخ :

Medical microbiology for nursing -
Clinical microbiology -

Course Syllabus





Weeks	Topics
1.	<p>*Introduction to Parasitology</p> <p>*Some terms of parasitology, types of parasites, Routes and modes of infections, types of hosts, relationships between parasite and host, some epidemiological terms,</p> <p>*Classification of Protozoa</p> <p>*General characters of protozoa</p>
2.	<p>*<i>Entamoeba histolytica, Entamoeba coli</i> (Life cycle. Symptom, pathology, diagnosis prevention and control, and treatment)</p> <p>*<i>Balantidium coli</i> (Life cycle and stages. Symptom, diagnosis prevention and control, and treatment).</p> <p>* Intestinal Flagellates/ <i>Giardia lamblia</i> (Life cycle. Symptom, pathology, methods of diagnosis, prevention and control, and treatment)</p> <p>*Luminal and Atrial flagellates <i>Trichomonas spp (T. hominis, T. tenax)</i> <i>Trichomonas vaginalis</i> (life cycle. Symptom, pathology, diagnosis, and treatment).</p>
3.	<p>*Blood and Tissue flagellates (<i>Leishmania spp. and Trepanosoma spp.</i>)</p> <p>Tissue flagellate (<i>Leishmania donovani and Leishmania tropica</i>) (Life cycle -1 and stages. Symptoms, pathology, diagnosis, and treatment) function and types of macrophages.</p> <p>2- Blood flagellates</p> <p>African trypanosomiasis -</p> <p>American trypanosomiasis -</p> <p>(Stages, life cycle, symptoms, diagnosis, Method of transmission)</p>
4.	<p>*Apicomplexa general characters</p> <p><i>Plasmodium</i> four species and diseases caused by each one-1 (Life cycle and stages. Symptom, pathology, diagnosis, global malaria prevention and control and treatment)</p> <p><i>Toxoplasmas gondii</i>-2 (Life cycle and stages. Symptom, diagnosis, control and treatment)</p>



<p>العدد : التاريخ :</p>	<p>*Helminthes (metazoa) general structure Classification of helminths a. Phylum: Platyhelminthes (flatworms) Class I: Cestoda (Tapeworms). general structure (<i>Taenia saginata</i>, <i>Taenia solium</i>, <i>Hymenoleps nana</i> and <i>Echinococcus granulosus</i>) (Symptom, diagnosis, control and treatment)</p>
<p>6</p>	<p>Class II: Trematoda (Flukes). general structure <i>Fasciola hepatica</i> (Life cycle and stages. Symptom, diagnosis, control and treatment) <i>Schistosoma haematobium</i>, <i>Schistosoma mansoni</i>, <i>Schistosoma japonicum</i> Life cycle and stages. Symptom, diagnosis, control and treatment)</p>
<p>7</p>	<p>b. Phylum: Aschelminthes or Nemathelminthes general structure</p>

	<p><i>Ascaris lumbricoides</i>, <i>Anchlyostoma duodenale</i>, <i>Enerobius vermicularis</i>, <i>Trichuris trichiura</i> Life cycle and stages. Symptom, diagnosis, control and treatment</p>
<p>8</p>	<p>Virology * General properties of viruses (virus components) - A virus like particles (VLPs) and Subviral particles (viroid and prions) - Classification types - Viral replication - Viruses effects on cells - Persistent viral infections - Common routes of viral infection in human -</p>
<p>9</p>	<p>*Measles, AIDS, Influenza virus (general structure of virus, symptoms, method of transmissions and prevention)</p>
<p>10</p>	<p>Hepatitis A, B, C, D, E (general structure of virus, method of transmissions and prevention) * Corona virus * General structure - Three types of human coronavirus cause severe symptoms - Coronavirus disease 2019 (COVID-19) - Prevention and control - How does it spread - Diagnosis and treatment -</p>

	جامعة وراث الانبياء العدد : التاريخ : Mumps (general structure of virus, symptoms, method of transmissions and prevention) * Rubella (general structure of virus, symptoms, method of transmissions and prevention) *
12	Rota (general structure of virus, symptoms, method of transmissions and prevention). polio virus (general structure of virus, symptoms, method of transmissions and prevention). *
13	Herpes virus and CMV * general structure of virus, symptoms, method of transmissions and prevention). *



العدد : التاريخ :	Patrick R. Murray, Ken S. Rosenthal and Michael A. Pfaller. Medical microbiology six edition. Elsevier Inc. -1	المراجع
	Louise Hawley, Richard J. Ziegler & Benjamin L. Clarke (2014): Microbiology and immunology, 6th edition. Lippincott Williams & Wilkins co. USA. -2	
	Patrick R. Murray (2018): Basic Medical Microbiology, Elsevier. -3	
	Essential of medical microbiology, Apurbs et al., second edition (2019) -4	

Signature Date.....

Head of department signature Faculty Dean approval

