

University of Mu'tah
Faculty of Medicine, Department of Microbiology and Immunology
Academic Year 2018-2019

Course outline

Course title: General microbiology

Code: 1504202

Credit hours: 3 hours (2 lectures and 1 practical)

Calendar description: 16 weeks of teaching during the first semester

Teaching staff: Dr Mohammad Abu Lubad, Prof. Dr. Ghada Helaly, Dr. Hamed Alzoubi, and Dr. Amin Aqel and Dr. Eman AlBatainah.

Course Description:

The aim for introductory course of microbiology is to provide second year medical students with the general knowledge about microorganisms; the course utilizes the use of lectures and practical teaching.

Objectives

- To know basics about microorganisms, their development, habitat, structure, isolation, cultivation, identification, nutrition, and control.
- To study the agents of human infectious diseases belong to five major groups of organisms bacteria, helminthes, protozoa, viruses& fungi
- Study the taxonomy, biological & clinical aspects of commonly occurring helminthes & protozoa. Also to get some knowledge in pathogenesis, diagnosis & treatment of parasitic infection.

Recommended text books

1. Microbiology: An Introduction by Tortora, Funk and Case/Benjamin Cummings.
2. Sherris, Medical Microbiology. Kenneth j. Ryan and C. George Ray.2004
3. Notes on medical microbiology , K. Ward et al
4. Basic clinical parasitology. Harold W. Brown& Franklin A. Fifth edition

Recommended References:

- 1- Medical bacteriology& immunology, examination and board review sixth editions. Lewinson, W. AND Jawetz,E.
- 2- Microbiology in clinical practice. Shason. Recent edition.
- 3- Medical parasitology. Ichhpjani&Rajesh Bahatia. Second edition

Recommended Websites:

- 1- World Health Organization www.who.int
- 2- The American Society for Microbiology: www.asm.org.
- 3- Centers for Disease Control: www.cdc.gov.
- 4- Medline search: www.ncbi.nlm.nih.gov/PubMed/medline.html .

Methods of instruction:

Lectures & practical

Methods of evaluation

Midterm assessment written exam	40%
Final practical exam	20%
Final assessment written exam	40%
Total marks	100%

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Week	Day	Date	Time	Topic
1	Sun	23/9/2018	8-9	Introduction to bacteriology
	Tue	25/9/2018	8-9	Bacterial morphology & structure
2	Sun	30/9/2018	8-9	Bacterial physiology & metabolism
	Tue	2/10/2018	8-9	Bacterial Genetics
3	Sun	7/10/2018	8-9	Identification and classification of bacteria
	Tue	9/10/2018	8-9	Introduction to Gram positive bacteria
4	Sun	14/10/2018	8-9	Sterilization and disinfection
	Tue	16/10/2018	8-9	Principles of infection control
5	Sun	21/10/2018	8-9	Introduction to Gram negative bacteria
	Tue	23/10/2018	8-9	Antimicrobial chemotherapy
6	Sun	28/10/2018	8-9	General virology (1): structure and classification
	Tue	30/10/2018	8-9	General virology (2): Viral Pathogenesis and viral Genetics
7	Sun	4/11/2018	8-9	General virology (3): Viral Replication
	Tue	6/11/2018	8-9	General virology (4): Methods for diagnosis and treatment.
8	Sun	18/11/2018	8-9	General virology (5): introduction to oncoviruses.
9	Sun	25/11/2018	8-9	Introduction to parasitology: Classification of parasites of medical importance and Sources of parasitic infections.
	Tue	27/11/2018	8-9	The effect of parasites on the host Pathogenesis and Diagnosis of parasitic infections
10	Sun	2/12/2018	8-9	Introduction to protozoa <i>E. histolytica</i> and <i>E.coli</i>
	Tue	4/12/2018	8-9	Introduction to trematodes.
11	Sun	9/12/2018	8-9	<i>Fasciola hepatica</i> and <i>Fasciolopsis buski</i>
	Tue	11/12/2018	8-9	Introduction to cestodes.
12	Sun	16/12/2018	8-9	Introduction to nematodes. Tissue nematodes .

	Tue	18/12/2018	8-9	Immunology of parasitic infection.
13	Sun	23/12/2018	8-9	General Mycology: Definition, morphology and pathogenesis.

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Practical Course outline

Name: General microbiology

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Teaching staff: Dr Mohammad Abu Lubad, Prof. Dr. Ghada Helaly, Dr. Hamid Alzoubi, Dr. Amin Aqel.

Week	Goups	Date	Time	Topic	Lecturer
2	1	Monday 1/10	11-1	Safety procedures in microbiology Microscopes.	Dr. Amin
	2	Tuesday 2/10	1-3		
	3	Wed: 3/10	11-1		
	4	Thursday: 4/10	11-1		
3	1	Monday: 8/10	11-1	Staining (Simple and Gram Stain)	Dr. Mohammad
	2	Tuesday: 9/10	1-3		
	3	Wed: 10/10	11-1		
	4	Thursday: 11/10	11-1		
4	1	Monday: 15/10	11-1	Hand Washing and sterilization	Dr. Hamid
	2	Tuesday: 16/10	1-3		
	3	Wed: 17/10	11-1		
	4	Thursday: 18/10	11-1		
5	1	Monday: 22/10	11-1	Types of culture media Cultivation of bacteria	Dr. Ghada
	2	Tuesday: 23/10	1-3		
	3	Wed: 24/10	11-1		
	4	Thursday: 25/10	11-1		
6	1	Monday: 29/10	11-1	Bacterial biochemical reactions	Dr. Ghada
	2	Tuesday: 30/10	1-3		
	3	Wed: 31/10	11-1		
	4	Thursday: 1/11	11-1		
7	Revision				
8	Midterm Exam				
9	1	Monday: 19/11	11-1	Antibacterial sensitivity test	Dr. Mohammad
	2	Tuesday: 20/11			
	3	Wed: 21/11	11-1		
	4	Thursday:	11-1		

		22/11			
10	1	Monday: 26/11	11-1	Laboratory diagnosis of parasitic infections. Slide demonstration of <i>E. histolytica</i> , <i>E. coli</i> . and <i>Toxoplasma gondii</i>	Dr. Hamid
	2	Tuesday: 27/11	1-3		
	3	Wed: 28/11	11-1		
	4	Thursday: 29/11	11-1		
11	1	Monday: 3/12	11-1	Slide demonstration of trematodes	Dr. Amin
	2	Tuesday: 4/12	1-3		
	3	Wed: 5/12	11-1		
	4	Thursday: 6/12	11-1		
12	1	Monday: 10/12	11-1	Slide demonstration of cestodes	Dr. Ghada
	2	Tuesday: 11/12	1-3		
	3	Wed: 12/12	11-1		
	4	Thursday: 13/12	11-1		
13	1	Monday: 17/12	11-1	Slide demonstration of nematodes	Dr. Mohammad
	2	Tuesday: 18/12	1-3		
	3	Wed: 19/12	11-1		
	4	Thursday: 20/12	11-1		
14	Revision				
15	Practical Exam: Time and date will be announced				
16	Final Exams				