مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

The University of Jordan

Accreditation & Quality Assurance Center

Course Syllabus

Diagnostic Medical Microbiology

1	Course title	DIAGNOSTIC Medical MICROBIOLOGY (2)
2	Course number	0534721
3	Credit hours (theory, practical)	Each course (2)
	Contact hours (theory, practical)	(1&4)
4	Prerequisites/corequisites	None
5	Program title	DIAGNOSTIC MICROBIOLOGY (1)
6	Program code	
7	Awarding institution	Faculty of High studies
8	Faculty	Medicine
9	Department	Pathology, Microbiology & Forensic Medicine
10	Level of course	one
11	Year of study and semester (s)	one
12	Final Qualification	None
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	2018

16. Course Coordinator:

Prof. Dr. Asem A. Shehabi

17. Other instructors:

2 Laboratory technicians

18. Course Description:

1- Culture methods for detection of most important bacteria and fungi causing human diseases
2- Identification of bacteria and fungi isolates using macroscopic, microscopic, biochemical rapid test and serological procedures

3-Antimicrobial susceptibility test (Disc diffusion and E-test)

19. Course aims and outcomes: Acquire advance knowledge about most important bacteria and fungi causing human diseases and their laboratory detection.

1.
2.

Steps of intervention. First course semester program	
Introduction: Organization of the clinical Bacteriology Laboratory-safety in the microbiology laboratory & Guidelines to diagnosis of infectious Diseases/Bacteriology	**1**
Guidelines for the collection, transport, processing, analysis and reporting of cultures from specific specimen types: - Collection and transport - Microscopy - Staining methods - Culture containers and culture media - Cultivation of bacteria - Tests for identification of bacteria	**2-3**
a) General Antimicrobial drugs	**4**
b) Antimicrobial Resistance	
c) Antimicrobial susceptibility testing methods	
Staphylococci and Micrococci Group	**5**
Streptococci Groups: Hemolytic streptococci & Viridans streptococci	**6**
Enterococci Group	**7**
a) Neisseria Group: Pathogenic & nonpathogenic Neisseria spp.	**8**
b) Moraxella spp. & Acinetobacter spp.	
Med-Term Exam	
Corynebacteria, C.diphtheria, Listeria spp.	**9**
Haemophilus Group & Bordetella spp.	**10**
a) Aerobic Bacillus spp. B. subtils, B. cereus & B.anthraxic	**11**
b) Anaerobic Clostridium spp.	
a) General E.coli & diarrheagenic E.coli strains	**12**
b)Citrobacter-Enterobater-Klebsiella-Group Serratia spp.	
c)Proteus-Providence-Morganella spp.	
a)Typhoidal and gastrointestinal Samonella Groups	**13**
a) Shigella spp.,	**14**
b)Campylobacter spp. & Helicobacter pylori	
Brucella spp. & Yersinia spp.	**15**
Second semester course program	

Week	Topic	Seminar 1-1.30 hours	
1-2	A- General Pseudomonas group B- P.aeruginosa C- Burkholderia & Shewanella D-Stenotrophomonas groups E-Aeromonas group	5	
3	A-Mycobacteria group B- M. tuberculosis C- M. avium D-Actinomyces group E- Nocardia groups	5	
4	A-Spirochetes group B-Treponema spp. C- Rickettsia group D-Ehrlichia chaffeensis	4	
5	A-Chlamydia spp., B-Mycoplasma spp. C-Legionella pneumophila	3	
6	A-Anaerobic gram-negative bacteria B-Anaerobic gram-positive bacteria	2	
7	Fungal cell structures and growth	1	
8	Diagnosis of fungal diseases	1	
9	A-Common opportunistic Yeast (Candida spp.) B- Cryptococcus neoformans C-Trichosporons spp. , Geotrichum spp.	3	
10-12	Common opportunistic filamentous Fungi A-Aspergillus group B-Fusarium , Mucor , Penicillium groups C-Histoplasma capsulatum, D-Bastomyces dermatididis E Coccidiodes immitis & Sporothrix schenkii	5	
13-14	A-General dermatophytes and other superficial fungi of body B-Trichophyton C-Microsporum D- Eipdermatophyton E- Mazssezia	5	

20. Topic Outline and Schedule:

3.

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
4.	5.	6.	7.	8.	9.
10.	11.	12.	13.	14.	15.
16.	17.	18.	19.	20.	21.
22.	23.	24.	25.	26.	27.
28.	29.	30.	31.	32.	33.
34.	35.	36.	37.	38.	39.
40.	41.	42.	43.	44.	45.

46.
47.

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

1-Seminars and Laboratory work for detection & identification most common and available bacterial and fungal infectious agents
2-Search of internet for specific papers published on bacterial and fungal infectious agents in Jordan and Arabic countries.
3-Presentation of specific topics on bacterial and fungal infectious agents

22. Evaluation Methods and Course Requirements:

- Mid course examination 30%
- laboratory examination 20%
- Seminar presentation 10%
- Final examination 40%

23. Course Policies:

1-Each student should present at least one topic bacterial and fungal infectious agents

2-Attend the seminars and laboratory sessions

24. Required equipment:

All necessary culture media , biochemical reagents, petri dishes, glass slides, Bunsen flame devices, bacteriological lobs, microscopes and control living bacterial and fungal agents.

25. References:

1- Medical Microbiology
Editors: Jawetz, Melnik & Adelberg's
Publisher; McGrow Hill, 22 edition, 2017

2- Bailey & Scvott's Diagnostic Microbiology

Editors: Ellen Jo Barren and Others
Publisher: Mosby, USA, 2016

3- Medical Microbiology Websites

4- Relevant Published Papers from Jordan and other Arabic Countries for each topic

26. Additional information:

Name of Course Coordinator: -Asem A. Shehabi Signature:  Date: 28-3-2018

Head of curriculum committee/Department: Pathology, Microbiology & Forensic Medicine

Signature: ----------

Head of Department: ---------- Signature: ----------

Head of curriculum committee/Faculty: ---------- Signature: ----------

Dean: ---------- -Signature: ----------

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File